



Public Utilities

FORTNIGHTLY



Volume 53 No. 10

May 13, 1954

PUBLIC UTILITY FINANCING POSTWAR

By Owen Ely

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California Utility Regulation, Yesterday, Today, and Tomorrow

By Frank C. Sullivan

« »

I Am a Superintendent of a Steam Power Plant

By Henry F. Unger

« »

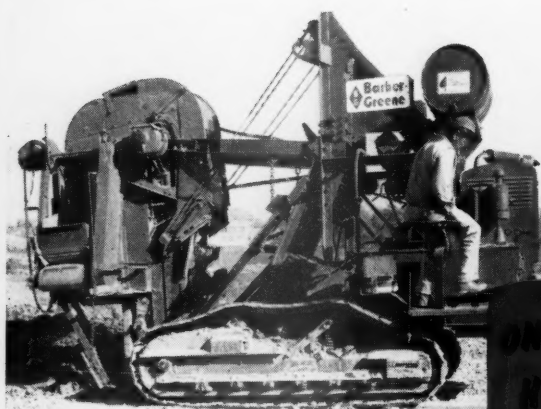
EEl President Sees Power Industry As Challenge to Engineers

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Public Utilities

FORTNIGHTLY

VOLUME 53

MAY 13, 1954

NUMBER 10



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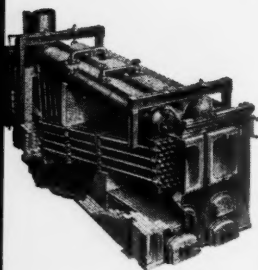
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75 years of progress

ASTORIA STATION GOES ON THE LINE



View of B&W Boiler for
Thomas Edison's Pearl Street
Station.

It is unlikely that Thomas A. Edison, genius that he was, ever envisaged 180-megawatt production from a single electric generating unit.

Yet today that is an accomplished fact in such outstanding plants as the new Astoria Station of Consolidated Edison Company, where the second B&W boiler to serve a 180-megawatt unit went on the line last month.

Now we are celebrating Light's Diamond Jubilee, and reminding all Americans of the electrical progress that has been so helpful to everyone in the short 75 years since Edison's Menlo Park experiments produced the first practical incandescent electric light.

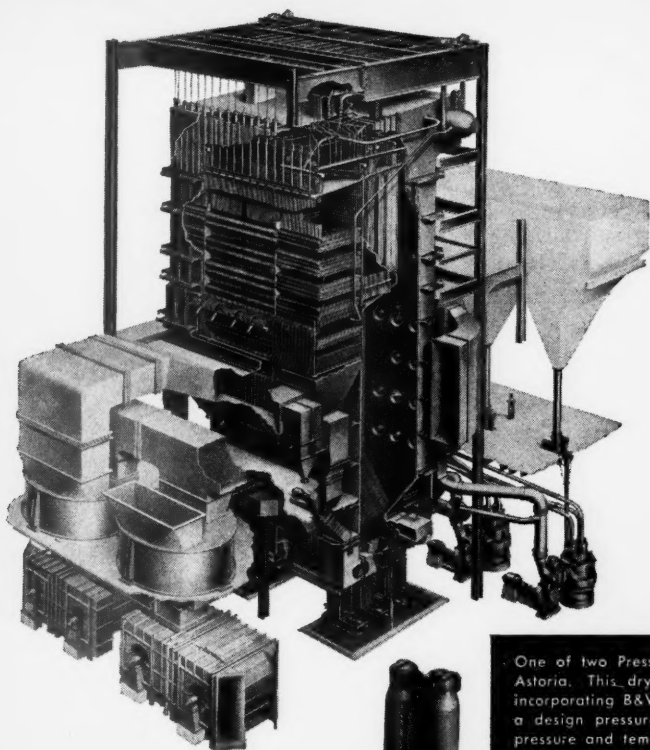
The public relations value of the Diamond Jubilee celebration is important, of course—and proper, too. But we at B&W believe that the electric power industry has good reason to celebrate the Diamond Jubilee for the sheer exuberance of looking back fondly and enthusiastically upon a great job well done—and of looking forward to a future that is limitless.

In only 75 years the lights that first glowed in Edison's Menlo Park Machine Shop have been multiplied by tens of millions across this country and the world. This could only have been accomplished by an industry so technically proficient and so dedicated to its public trust that each challenge has been met in turn, and each victory marked down as a foundation on which to build further.

Having supplied Edison with his boilers for Menlo Park, and a few years later for his Pearl Street Station, we at B&W are proud of our own continuing technical contributions such as Cyclone Furnaces, Pressure Firing, Cyclone Steam Separators, Coal Pulverizers and Divided Furnaces, that have helped the utilities produce more power for more people at lower cost than power pioneers ever dreamed of.

We may well pause to reflect on Menlo Park and Astoria Station—each a significant date in power generation, a significance made greater by the fact that each points in the same direction—to an expanding future.





One of two Pressure-Fired B&W Boilers installed at Astoria. This dry-bottom, Radiant Reheat Type unit incorporating B&W Divided-Furnace construction, has a design pressure of 2050 psi. Superheater outlet pressure and temperature are 1850 psi and 1000 F, with reheat to 1000 F. Designed steam output ranges between 1,200,000 and 1,370,000 lb per hr, depending upon type of fuel.

Astoria Generating Station of Consolidated Edison Co. which will ultimately have a generating capacity of about 1,000,000 kw.

**BABCOCK
& WILCOX**

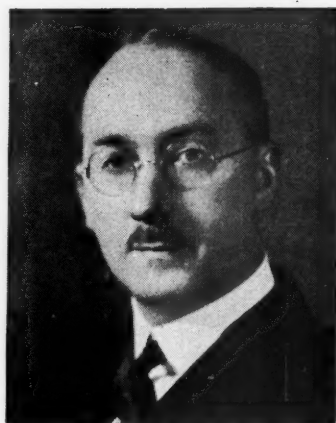


Pages with the Editors

THE recent decision of the Federal Power Commission in the Panhandle Eastern Pipe Line Case has created no small stir in regulatory circles. Early reactions varied from such expressions as "A regulatory H-bomb" to "The biggest thing since the Hope Natural Gas Case in 1944." But, actually, what the majority of the commission did in deciding to break with its traditional rate base approach in determining the return to be allowed on company-owned production of natural gas was the exercise of a discretionary prerogative which is as old as regulation itself.

THIS is the right of a regulatory agency to change its policy to suit changing economic conditions and varying circumstances. Time and again the U. S. Supreme Court has refused to endorse any formula or to put utility regulation in a strait jacket, even though greatly tempted at times to approve patterns which appeared nice, neat, and precise — patterns which had earned the hearty endorsement of respectable and authoritative experts.

As the FPC majority stated in the Panhandle Case, "the contention that the doctrines of *stare decisis* or *res adjudicata* have application in the field of administra-



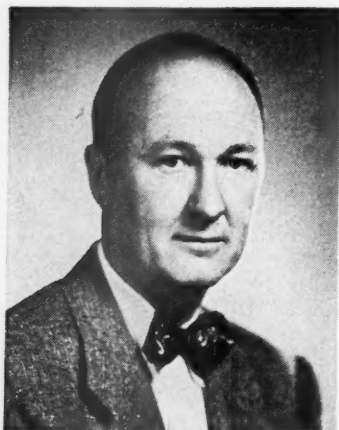
OWEN ELY

tive rate making . . . is far from being the case." The opinion went on to quote a very pertinent observation by Mr. Justice Frankfurter in the Board of Trade Case: "The process of rate making is essentially empiric. The stuff of the process is fluid and changing—the resultant of factors which must be valued as well as weighted."

IT is much too early to do more than speculate about the short-range or long-range effect of the FPC adoption of "fair field price" on other cases and other regulatory commissions. It does represent a partial departure from a regulatory policy of net investment rate base to which the commission has remained steadfast for more than a decade.

BUT aside from possible aftereffects, there is nothing in this decision to constitute any departure from the Hope decision or any other decision in which the highest court refused to endorse any fixed formula. On the contrary, these same decisions can and doubtless will be used on appeal as arguments for upholding the commission's exercise of its presumed expert judgment within the regulatory discretion allowed by statute.

SUCH important decisions are but recognition of the changes which are bound



FRANK C. SULLIVAN

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to come from time to time in such dynamic industries as our public utilities. Regulatory commissions are charged with the responsibility not only of protecting the consumer from exploitation but also protecting him in the form of an assured and efficient service. And this in turn depends on the continued attraction of necessary investment to build and expand the plant used in such service.

ONE of the best proofs that our American brand of regulation over the long run does win the confidence of the investor is the record of successful financing which our public utility industries have compiled. This is especially true since the end of World War II. Back in 1927 the electric industry alone financed over \$2 billion (a little less than half of which was for refunding) and many believed that that might be an all-time peak. But since the end of World War II new capital financing in this industry has pushed steadily past the billion mark. It reached a new peak of \$2.4 billion last year.

OTHER utility industries have made proportionately long postwar strides in financing. OWEN ELY, financial editor of PUBLIC UTILITIES FORTNIGHTLY, has written a provocative analysis of these postwar trends as the opening article in this issue.

* * * *

IT is a well-known fact that regulatory commissions have become conscious of the importance of public relations, especially since the postwar era of rate case activity. The California commission has set a brisk pace in its progressive evolution from a traditional railroad commission of yesterday to a dynamic controlling agency with full jurisdiction over all major utilities in the Golden state. FRANK C. SULLIVAN, San Francisco public relations consultant and former press officer of the California commission (in his article beginning on page 591), has chronicled this development and given us some conclusions on the outlook of commission regulation generally.

MR. SULLIVAN is a native of Portland, Oregon, and received his education at



HENRY F. UNGER

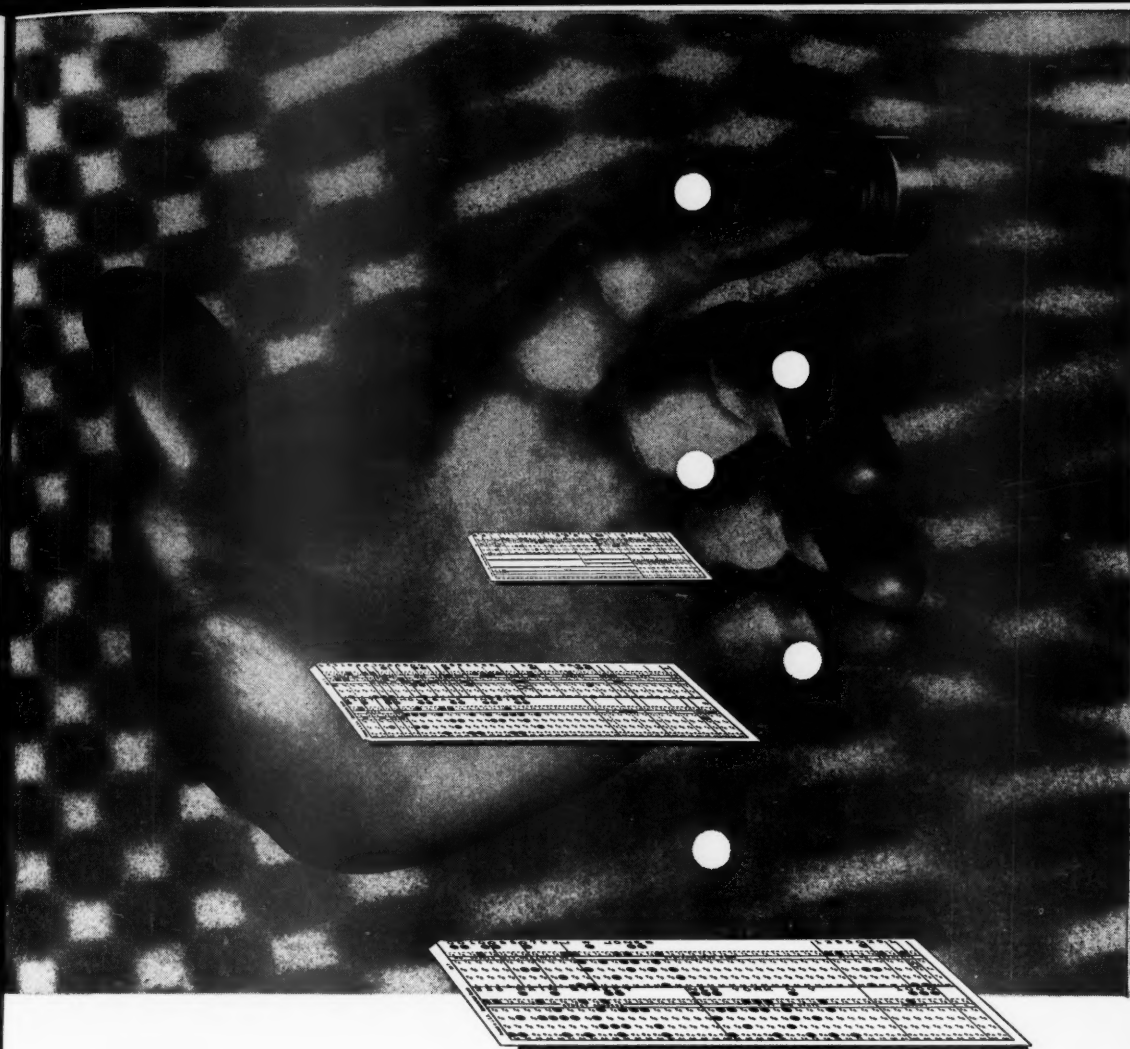
Silver Bow College of Law at Butte, Montana. He started out as a newspaperman, serving on the staff of a number of dailies in Butte, Montana; Portland, Oregon; Sacramento, California; and Oakland, California. He was a public relations consultant in Oakland from 1935 to 1942, when he joined the staff of the California Public Utilities Commission, to take charge of that agency's public relations functions. More recently, he has been engaged as a public relations consultant in San Francisco.

* * * *

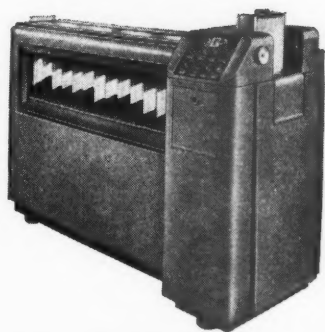
WE continue to get expressions of favorable reaction to the human interest articles by HENRY F. UNGER, Phoenix, Arizona, professional writer, who has been doing a series of "first person" interviews on key personnel individuals in various utility callings. In his article beginning on page 601 MR. UNGER has interviewed an anonymous superintendent of an electric plant. How did he get his job? How does he like it? What does he do on the job and off, and what does he think he will do ten years or more from now? These and other questions are answered in this entertaining account of what makes a plant superintendent tick.

THE next number of this magazine will be out May 27th.

The Editors



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Coming IN THE NEXT ISSUE



WHAT DO THE PANHANDLE AND PHILLIPS CASES MEAN?

The recent decision of the Federal Power Commission in the long-awaited Panhandle Eastern Pipe Line Case caused considerable stir in regulatory circles. This was because it represented a departure by a commission, which has been most steadfast in strict adherence to the original cost rate base approach, by its adoption of "fair field price"—recognizing a current commodity value for gas production facilities. Of equally far-reaching importance has been the issue raised on appeal to the U. S. Supreme Court in the so-called Phillips Petroleum Case, involving the question of whether the FPC ought to take jurisdiction over gas producers. Both of these cases may be related to some extent, as parts of the broader question of FPC regulation of natural gas in the field. Edward Falck, former director of the WPB Office of War Utilities, and now a utility consultant in Washington, D. C., has made an analysis of the stakes involved in these two important policy-making regulatory decisions.

THE GAS INDUSTRY'S PROBLEMS FROM THE INVESTOR VIEWPOINT

There is no doubt that the demand for gas will increase substantially in the future through the addition of residential customers, even though the price of gas continues to rise. What standards do the insurance companies and other important institutional investors apply in determining their financial commitments in the various phases of the natural gas industry: production, transmission, and distribution? How do the legal restrictions on such investments apply and what has been the actual financial record? How do these investors view the attitudes of the Federal Power Commission and other regulatory bodies? Stuart F. Silloway, vice president for finance of the Mutual Life Insurance Company of New York, has taken a look at the basic problems of the natural gas industry from the viewpoint of a life insurance executive.

WILL "CYBERNETICS" DO AWAY WITH PEOPLE?

It is no secret and no joke that in this modern H-bomb and jet-speed age human beings are becoming obsolete in some respects. Planes fly faster than man can fly them and remain in one piece. Rockets go higher than living organisms can endure without elaborate protective equipment. The demands of modern science for lightning mathematical calculation have long made the machine more important and more accurate than its human inventor. Of course, we all know what the H-bomb can do and pray that it never will. In this issue, James H. Collins, business author of Hollywood, California, has looked in on some of the latest electronic brains—"cybernetics"—and other push-button equipment being used and developed in the telephone industry, and gives us an entertaining report on it.



Also . . . *Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.*

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—MONTAIGNE

MICHAEL W. STRAUS
*Former Reclamation
Commissioner.*

"National resources are emerging in Congress as a great political issue. They are the great honeypot of our national wealth and the flies sure are buzzing."

WILLIAM RANDOLPH HEARST
Late publisher.

"We all know perfectly well that there is not as much democracy in the United States as there once was. The tendency is clearly in the direction of authoritarian government."

*Excerpt from New England Letter,
published by First National
Bank of Boston.*

"What this nation and, in fact, the entire world needs, is courage to replace fear, personal initiative to replace paternalism, and venture to replace the frenzied search for security."

WILLIAM JACKMAN
*President, Investors League,
Inc.*

"There need be no loss in revenue if a 10 per cent dividend credit is accompanied by an entirely fair and proper provision that all competing profit-making enterprises be taxed on the same basis and at the same rates."

DUNLAP D. SMALLEY
*President, Pacific Coast Electrical
Association.*

"We who campaign for private enterprise and freedom of industry cannot claim, in all honesty, that we have even made the final advance. Therefore, we still have much work to do. And the degree of success we seek in the future is dependent entirely on our abilities to prove—and prove—and prove—that public utilities can be operated in the interests of the public better by freedom-loving, private enterprise than by any other means."

ROBERT L. MINCKLER
*President, General Petroleum
Corporation.*

"Our sources of energy are oil, natural gas, coal, and falling water used for the generation of electricity. In 1920, the energy from these sources amounted to a little more than 22,000 trillion BTU's. In 1952, that had increased to 39,000 trillion BTU's. The oil industry supplies more than the total increase. Coal production in 1952 was 23 per cent lower in volume than in 1920. Water power has doubled, but the oil industry output of oil and natural gas was six times that of 1920."

WILLIAM E. JENNER
U. S. Senator from Indiana.

"Before we can solve the great problem of foreign policy in this dangerous and disorganized world, Congress must give back to private industry, to private reform and private education, and to local government, every activity which can be surrendered by the federal government. We must adopt as our first principle the total dismantling of that colossus on the Potomac, the Welfare State, erected by the New Dealers . . . not to help the poor, but to give themselves absolute irresistible power."

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INTERNATIONAL® TRUCKS

"Standard of the Highway"

REMARKABLE REMARKS—(Continued)

BENJAMIN F. FAIRLESS
*Chairman of the board, United
States Steel Corporation.*

"... if our national supply of common sense has not been wholly exhausted, the American people will take a long, cold look at the primrose path of inflation before they travel it again; for the destination to which it leads is national ruin."

ERIC JOHNSON
*President, Northwest Public
Power Association.*

"The private power corporation is not competitive business, it is a monopoly. It is not free; it is not enterprise. Public power is free enterprise; anyone who has had anything to do with the creation of a public power system knows that it takes a lot of enterprise."

*Excerpt from The Guaranty
Survey, published by Guaranty
Trust Company of New York.*

"A normal business decline is the concern of business, not of government. A weakening of demand is a sign of maladjustments, and the struggle to regain lost markets is the driving force by which the maladjustments are corrected. Only the buyers and sellers of goods and services can exert this force. 'Reflation' from without is no substitute for readjustment from within. Instead of correcting the maladjustments, it tends to perpetuate and aggravate them."

CHARLES A. LINDBERGH
*Brigadier General, U. S. Air Force
Reserve.*

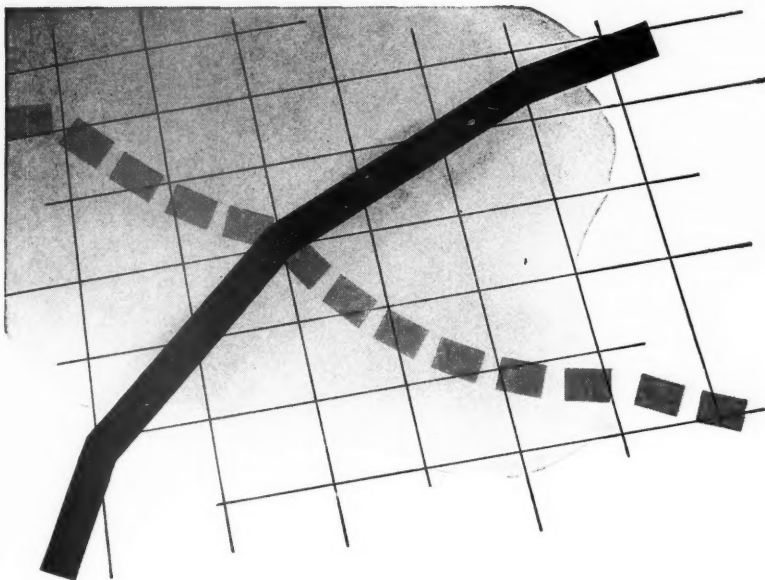
"We must remember that it was not the outer grandeur of the Roman but the inner simplicity of the Christian that lived on through the ages. Short-term survival may depend on the knowledge of nuclear physicists and the performance of supersonic aircraft, but long-term survival depends alone on the character of man. While we concentrate our attention on the tools of economics and war, we must not neglect the basic means of surviving, the basic reason for survival, man himself."

GRAYSON KIRK
*President, Columbia
University.*

"The problems that confront us as a nation are so complex and so burdensome that we can trust confidently in our democratic processes only if we have an electorate with a generally high level of education. We must have voters who will be intelligent enough to understand and to resist the demagogues no matter what brand of patent medicines they try to sell. Our system has always been based on a respect for the residual good sense of the average man, but we shall increasingly need men whose exercise of common sense will be based on a wide and deep understanding of the essentials of the problems with which they are asked to deal."

M. S. RUKEYSER
Columnist.

"I don't go along with the unscientific idea that, willy-nilly, we shall prosper irrespective of the decisions we make and the policies we choose. In order to get optimum results, the union officials must also be realistic. If through force, instead of intelligent co-operation, they price the human energy of their members out of the market, and hamstring the employer, who should be the star salesman for their hours of labor, then they contribute to the very adversity which they envisage in such gloomy terms. Unless there is co-operation, team play, and mutual good will, the readjustment will be more difficult. But, in spite of much loose talk over the airways and elsewhere, solid progress is being made."

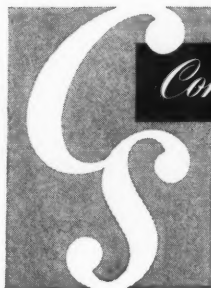


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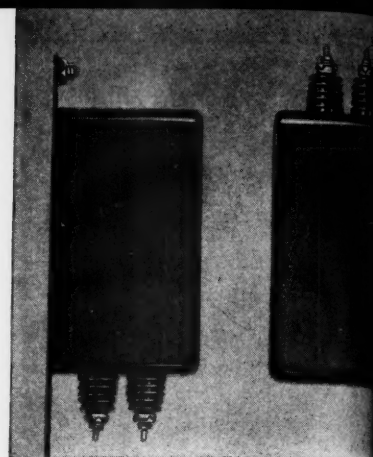


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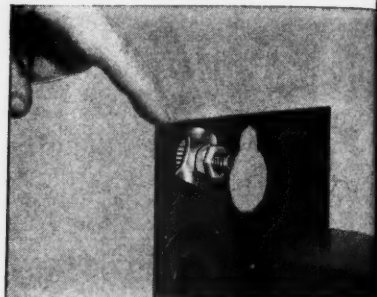
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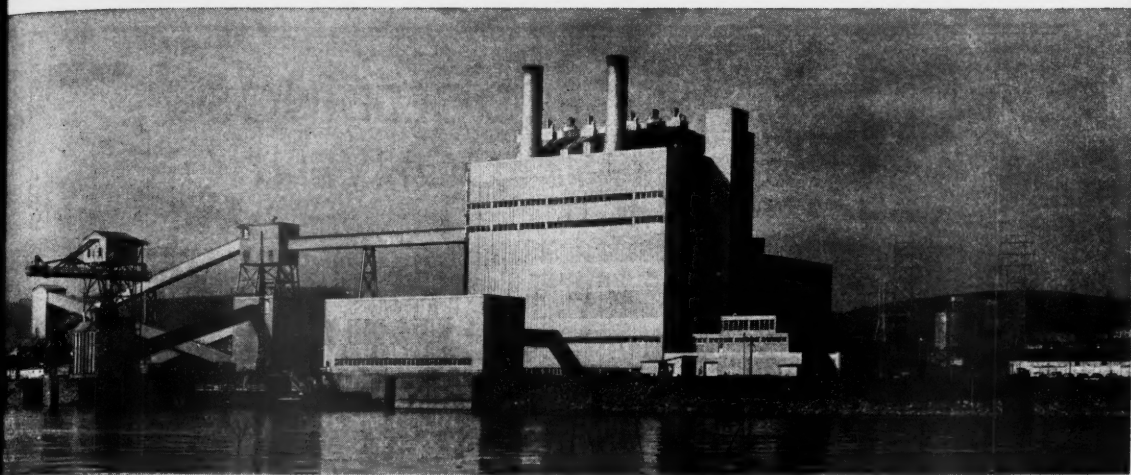
The new 5-kvar unit is completely evacuated, filled with Pyranol* dielectric and hermetically sealed. The case is made of drawn steel with rounded corners. These units, specifically designed for long-time dependable service, are now available for stock shipments.

For more information on the new G-E 5-kvar residential secondary capacitor, contact your G-E Apparatus Sales Representative or write Section 441-11, General Electric Company, Schenectady 5, N. Y.

*Registered trade-mark of General Electric Company.

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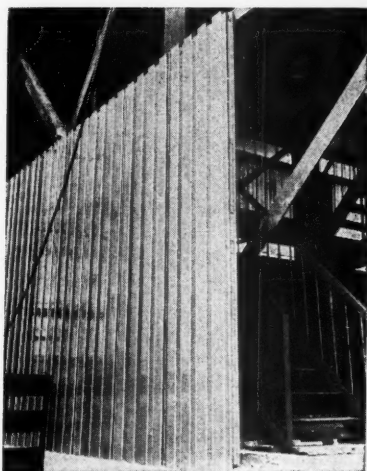
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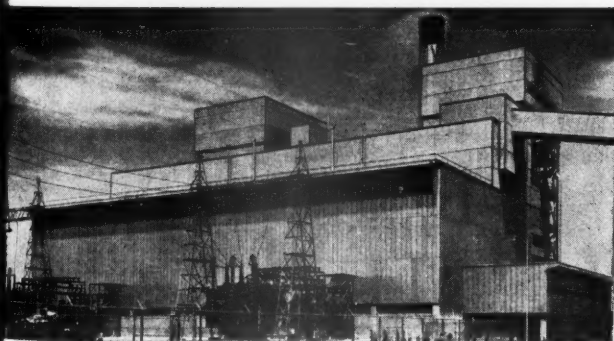
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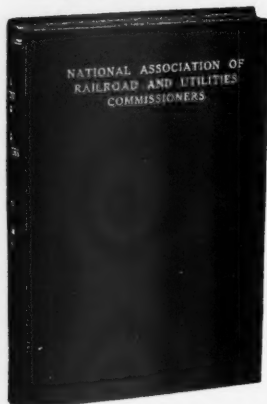
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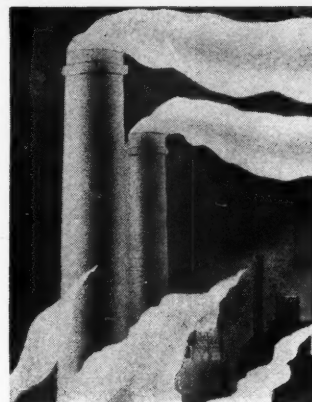
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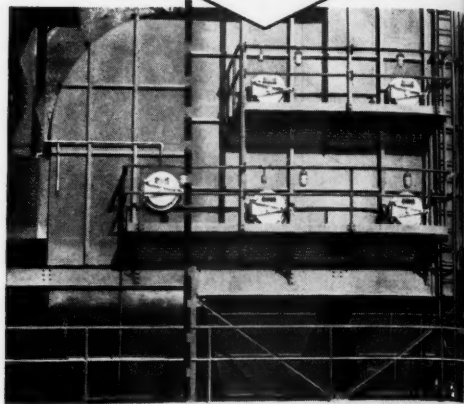
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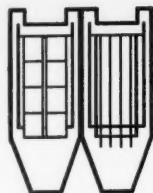
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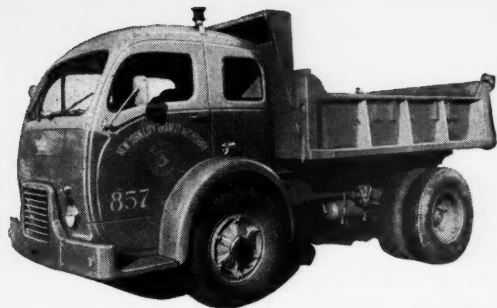
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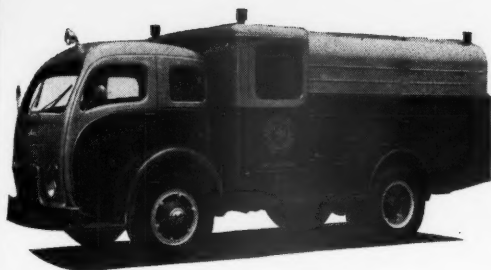
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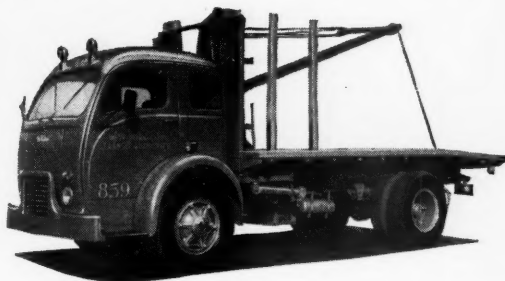
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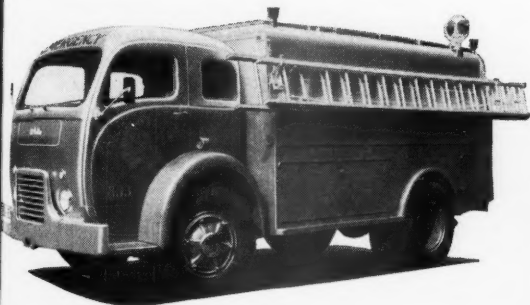
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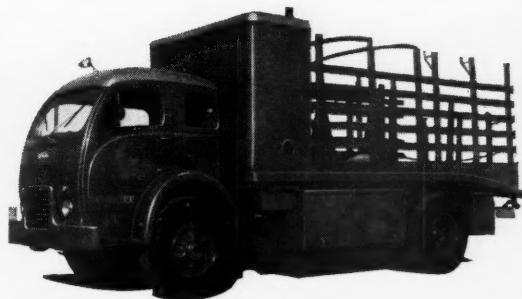
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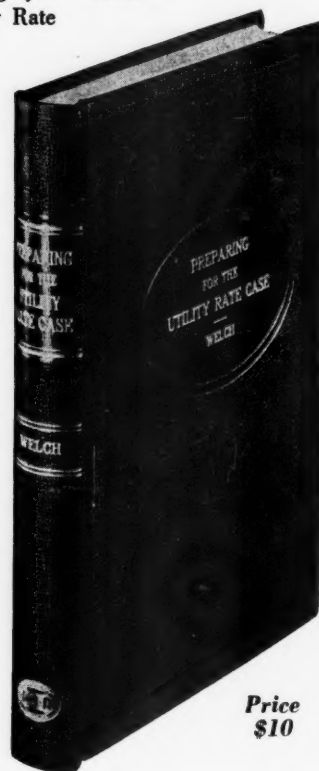
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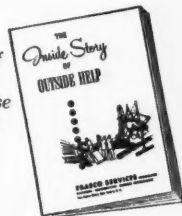
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Monday—17 <i>National Federation of Financial Analysts Societies begins annual convention, Chicago, Ill.</i> 	Tuesday—18 <i>Pennsylvania Gas Association begins meeting, Pocono Manor, Pa.</i>	Wednesday—19 <i>American Institute of Electrical Engineers ends 3-day technical conference, Chicago, Ill.</i>	Thursday—20 <i>Pennsylvania Electric Association, Communications Committee, begins spring meeting, Harrisburg, Pa.</i>
Friday—21 <i>Gas Appliance Manufacturers Association ends 3-day annual meeting, Chicago, Ill.</i>	Saturday—22 <i>Edison Electric Institute will hold annual meeting, Atlantic City, N. J. June 1-4. Advance notice.</i>	Sunday—23 <i>American Water Works Association begins annual conference, Seattle, Wash.</i>	Monday—24 <i>American Gas Association, Operating Section, Chemical, Engineering, and Manufactured Gas Production Conference begins, Pittsburgh, Pa.</i>
Tuesday—25 <i>American Water Works Association, Pacific Northwest Section, begins luncheon meeting, Seattle, Wash.</i> 	Wednesday—26 <i>Pennsylvania Independent Telephone Association ends 2-day annual convention, Bedford, Pa.</i>	Thursday—27 <i>Natural Gas and Petroleum Association of Canada begins meeting, Windsor, Ontario, Canada.</i>	Friday—28 <i>National Association of Electrical Distributors will hold annual convention, Atlantic City, N. J. June 6-11. Advance notice.</i>



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FORTNIGHTLY

VOL. 53, No. 10



MAY 13, 1954

Public Utility Financing Postwar

Since the end of World War II, new capital financing has steadily pushed past the billion mark for utilities. And in 1953 the electric utility division established a new peak of \$2.4 billion. Other utility industries, especially the lusty newcomer, natural gas pipelines, have made proportionately giant postwar strides in financing.

By OWEN ELY*

ELECTRIC utility financing during the 1920's was extremely active, reaching a peak of \$2.1 billion in 1927— which figure was not exceeded until last year, when the total for this division of the utility industry reached \$2.4 billion. However, the 1927 figure included \$913,000,000 of refunding operations, so that the amount raised for new capital approximated only \$1.2 billion (and this figure was probably excessive because of the large amount of promotional financ-

ing). New capital financing has exceeded this amount in every postwar year since 1947.

To analyze the financing methods of the 1920's would require an article or a book in itself. Direct disposal of securities to customers was one of the practices of that period, such sales reaching almost \$300,000,000 in 1925 but fading out of the picture in 1934 — incidentally, this was the only year on record when the industry did not attempt the sale of any preferred or common stocks. The promotional holding company activities of the 1920's led to the frequent use of options, warrants, "units,"

*Financial editor, PUBLIC UTILITIES FORTNIGHTLY. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

convertibles, and various kinds of hybrid or "participating" securities. Little attempt has been made in the postwar financing to revive the more bizarre methods of the 1920's, though there have been a number of convertible issues and a few cases of "units" financing.

By 1932 the electric utility companies had (at the behest of President Hoover) built a considerable amount of capacity in excess of prevailing needs, and comparatively little new-money financing for construction work proved necessary during the 1930's. Due to the high interest rates of the early 1920's, however, there was a considerable amount of refunding which reached \$1.3 billion in 1936; with the "cheap money" policies of World War II there was another spurt in such financing, which again reached \$1.3 billion in 1945. Refunding operations dropped to a low mark of \$10,000,000 in 1952 (electric utilities), but there is some revival currently with the sharp decline in money rates; recently Detroit Edison indicated that it was planning to refund \$40,000,000 3½s of 1988 issued last April, which could probably now be replaced by 3½s.

During the 1940's, with the breakup of the holding companies under the SEC program, a new kind of financing came into the picture, "divestment financing." In 1949 these sales amounted to about \$200,000,000 or nearly 7 per cent of all utility financing, but by 1952 they had dropped to \$58,000,000 and in 1953 amounted to only \$10,000,000. With the holding company break-up program now about completed, this item will soon become negligible.

While the *Commercial and Financial*
MAY 13, 1954

Chronicle has published statistics of utility financing since 1919, more detailed compilations have only become available in recent years. The most comprehensive tables are those published by the corporate finance department of Ebasco Services, Inc. (2 Rector street, New York). These are available on a subscription basis. The latest issue is the 55-page "Analysis of Public Utility Financing for 1953." The charts on pages 583 and 585 prepared for this article are based on the Ebasco compilations.

Charts II-V (which cover the utility industry as a whole) give a breakdown of total financing in four ways: by *type of security*—debt, preferred stock, and common stock; by *type of sale*—public offering, sale to institutions, and subscription financing; by *purpose of sale*—new capital, divestment, and refunding; and by *method of underwriting*—competitive bidding, negotiated sale, sale without underwriting, or private sale to institutions.

THE heavy construction program of the postwar period, including the building of huge generating capacity for the electric utilities, the construction of important new pipelines to transport natural gas, and the rapid expansion of the communications industry have required the raising of huge amounts of new capital, which in the past three years have been as follows in millions of dollars:

	1953	1952	1951
Electric	\$2,348	\$1,731	\$1,495
Gas	994	655	763
Telephone	842	745	578
Other	32	18	26
Total	\$4,216	\$3,149	\$2,862

Chart I on page 583 shows utility financ-

PUBLIC UTILITY FINANCING POSTWAR

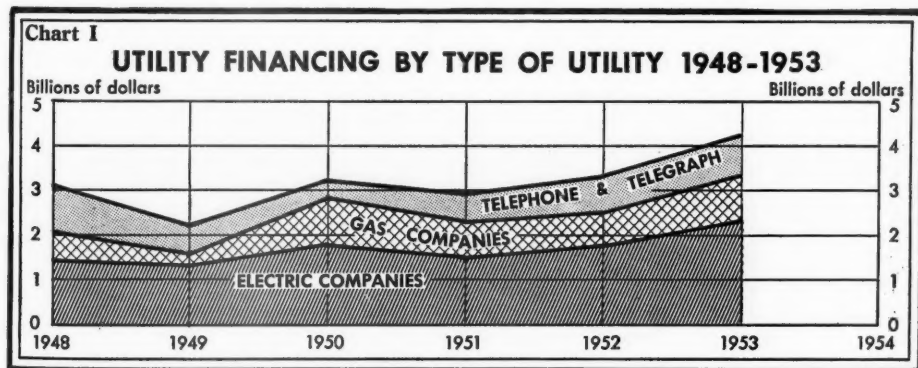
ing for 1948-53 as divided between electric, gas, telephone, and miscellaneous utilities, but these figures include refunding and divestment financing.

It is remarkable that utility financing in the postwar period has, in general, been adequate to maintain and improve equity ratios. This has been particularly true of the electric utilities and the Bell system. In spite of the temptation to resort to excessive bank loans or bond financing in order to give a "leverage" uptrend to common stock earnings and take advantage of income tax savings, the electric utilities have arranged their financing so as to maintain the average equity ratio for the industry around the traditional 37-38 per cent. The proportion of long-term debt has been held within a range of about 46-49 per cent of total capitalization, with preferred stock contributing some 15 per cent.

American Telephone and Telegraph Company has indicated its desire to maintain an equity ratio approximating 67 per cent and has planned its sale of stock to employees and its huge issues of convertible debentures, with this objective in mind. The ratio as of December 31, 1953,

was 59 per cent. The management believes that it must maintain an equity ratio considerably higher than that of the electric utilities, because the telephone industry has a heavier wage problem and a more cyclical business.

IN order to maintain a 38 per cent equity ratio, the electric utilities find it necessary to do less than one-quarter of their total financing in the form of common stock issues. This is explained by three factors: (1) Depreciation and amortization charges contribute cash towards construction programs, though of course this does not affect the equity ratio directly; (2) retained earnings after payment of common stock dividends also contribute, and build up the equity ratio; (3) convertible debentures and preferred stocks, though not initially counted as equity financing, eventually take that form. Apparently no totals are compiled for the amount of convertible issues but, including the big telephone offerings, these have been fairly substantial in recent years. Retained earnings for the electric utility industry in 1952 approximated \$222,000,000 or more than half the amount of equity financing in that year.



PUBLIC UTILITIES FORTNIGHTLY

	<i>Total Financing</i>	<i>Long- Term Debt</i>	<i>Preferred Stock</i>	<i>Common Stock</i>
Public Offerings—				
Underwritten				
Competitive Basis	38%	41%	29%	31%
Negotiated Basis	17	3	54	57
No Underwriting	17	19	1	12
Private Placement	28	37	16	—
Total	100%	100%	100%	100%



TURNING to the question of type of financing, it is obvious that sale of utility securities directly to institutions (principally insurance companies) is an important method of placing securities. Sometimes the utility company negotiates directly, but in other cases one or more investment banking houses act as agents or intermediaries, receiving a "finder's fee" for their efforts. Comparatively few preferred stock issues are handled in this way—the most recent instance being \$6,-250,000 Florida Power & Light 4½ per cent preferred stock, which was placed by Glore, Forgan & Co. with a number of insurance companies. In 1953, \$58,000,000 or about 16 per cent of all utility preferred stock financing was placed in this way, compared with 7 per cent for the previous year. A much larger proportion of debt financing was privately handled—37 per cent in 1953 compared with 24 per cent in the previous year. Reducing all utility financing to percentages, the methods of sale in 1953 were as shown in the above table.

Negotiated deals are largely confined to

preferred and common stock offerings, only a small percentage of debt financing being handled on this basis. The proportion of common stock financing which was negotiated remained at the same proportion, 57 per cent, during the years 1952 and 1953. The attitude of the regulatory commissions largely governs the amount of "negotiated" sales.

Public offerings are subdivided as to type of sale—direct or through subscription. Excluding private placements from the 1953 totals, the percentages work out as indicated in the table below.

Subscription sale of bonds is unusual except in the case of convertible issues, and the huge AT&T convertible debenture offerings account for most of the 33 per cent ratio. The same is true of preferred stocks—it is usually the convertible issues which go the subscription route.

IF we take the utility industry as a whole, the \$1,162,320,000 subscription offerings in 1953 were sold as follows: by competitive bidding, 11 per cent; negotiated sales, 28 per cent; no underwriting, 61



	<i>Total Financing</i>	<i>Long- Term Debt</i>	<i>Preferred Stock</i>	<i>Common Stock</i>
Direct Sale to Public	63%	67%	89%	41%
Subscription Offering	37	33	11	59
Total	100%	100%	100%	100%

PUBLIC UTILITY FINANCING POSTWAR

UTILITY FINANCING 1948-1953

Chart II
BY TYPE OF SECURITY

Billions of dollars

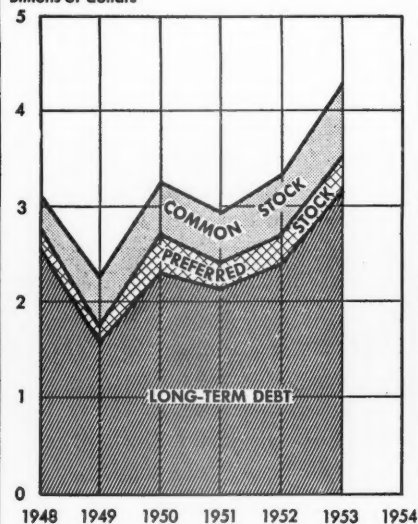


Chart III
BY TYPE OF SALE

Billions of dollars

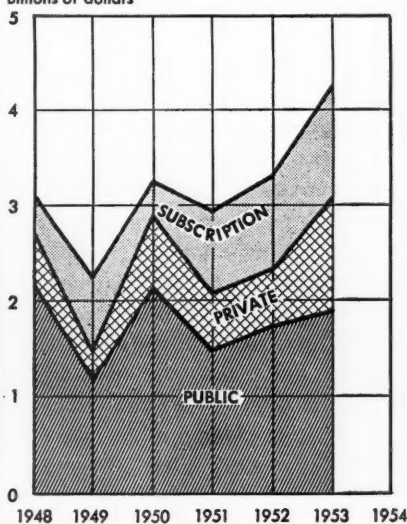


Chart IV
BY PURPOSE OF SALE

Billions of dollars

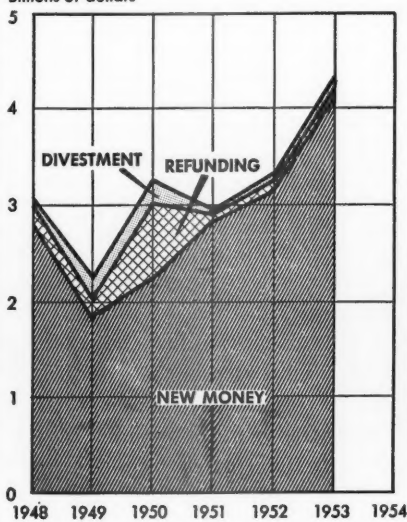
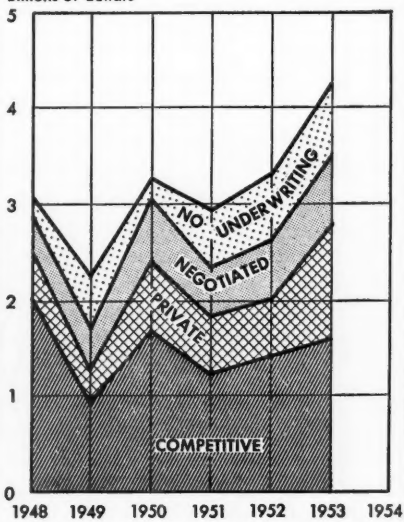


Chart V
BY METHOD OF SALE

Billions of dollars



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per cent. However, the latter group included the huge telephone convertible debentures, amounting to \$628,860,000. For the electric utilities only the proportions were these (the ratios were somewhat similar for the gas companies): competitive bidding, 28 per cent; negotiated sales, 59 per cent; no underwriting, 13 per cent. Thus, of the underwritten subscription offerings, slightly less than one-third went the competitive route, while more than two-thirds were negotiated.

Where large issues are negotiated, the chief underwriting house frequently works with the utility to build up interest in the issue through field trips or meetings for analysts, special brochures, etc. (The same is true, of course, for negotiated common stock offerings to the public.) While competitive bidding might narrow the "spread" on a stock issue, a negotiated deal may mean a better over-all result in terms of net price to the company.

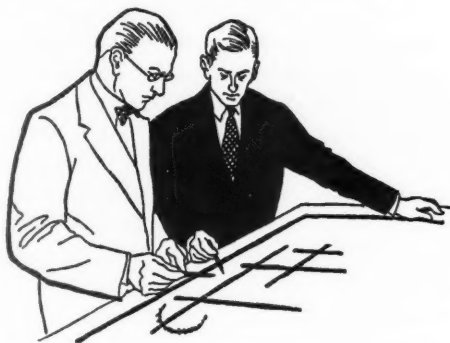
IT is equity financing which offers the greatest variety of methods, and probably involves more questions of policy than all other utility financing combined. In the first place, the question of *timing* the offering is far more important than with bonds and preferred stocks, since the cost in terms of the earnings-price ratio or dividend yield can vary much more widely than with respect to the yield cost of senior issues.¹ Moreover, the blow is softened, if a senior issue should be sold at a bad time, by two factors: (1) in the

case of bonds and debentures, about half of the increased cost is offset by federal income taxes; (2) and bonds, debentures, and preferred stocks can soon be refunded if money conditions become more favorable (as in the instance of the Detroit Edison bonds mentioned above). With a common stock offering, however, bad timing or an unsuccessful deal are more or less of a permanent handicap to the company's future, since the results are frozen into the company's balance sheet. Seldom, if ever, can the stock be repurchased or retired; and there is no income tax deduction in this case to mitigate the error.

THUS, it is all-important for the future prosperity of a utility company to plan wisely with respect to equity financing. There is considerable flexibility of timing since the equity ratio may temporarily be allowed to "slip" a little and construction needs can temporarily be met through bank loans.

Timing with respect to market trends is sometimes difficult, however, since registration must be made several weeks in advance—as was illustrated by several badly timed stock offerings last spring, when market weakness developed after offerings had been scheduled. Equity financing involves a number of corollary problems such as dividend pay-out, payment of stock dividends, listing on an exchange, subscription offering *versus* direct sale, method of underwriting, etc. However, most utilities have set a general policy with respect to these methods and find it convenient to stick to their formula year after year. Sometimes, however, this may be interpreted by outsiders as indicating that management is not progressive enough to re-examine its policies.

¹ One difficulty in the timing of offerings of senior securities is "market congestion"—i.e., if competitive bidding in several offerings occurs at the same time the investment machinery for contacting institutions and other customers may break down. The Edison Electric Institute recently proposed setting up a clearinghouse method for "spreading" important offerings and avoiding congestion.



Success of Postwar Financing

"THUS far the utilities have been remarkably successful in financing their immense postwar construction programs, without resorting to the 'high-pressure' methods of the 1920's. Not only have they maintained traditional balance sheet standards, but in the case of many operating utilities which emerged from holding company control they have effected great improvement in financial structure, while at the same time obtaining necessary new capital."

THE question of dividend pay-out is probably the most pressing problem.² By maintaining a low dividend pay-out, equity financing can be substantially reduced or perhaps postponed for years. "Growth" utilities seem more apt to use this method; for example, Florida Power & Light has as yet done no equity financing since it emerged from American Power & Light. On the other hand, one of the fastest-growing electric utilities, Arizona Public Service, came to the market twice last year with equity financing, and Southwestern Public Service (a growth company with a relatively high pay-out) has done equity financing early in the year for about eight consecutive years.

² See "Dividend Pay-out—Today" by W. F. Stanley, PUBLIC UTILITIES FORTNIGHTLY, October 22, 1953.

If a subscription offering is decided upon, the next question is whether it should be underwritten. Here again the question of policy enters in—should the management be generous to the stockholders, and offer the stock at a good concession from the prevailing market price in order to make the rights valuable and insure the success of the offering? On the other hand, if it does not wish to give stockholders a "bonus" in the form of valuable rights, is it better policy to assume the risk of unfavorable market conditions during the subscription period (in which case new ways of raising part of the money must be found) or to insure success of the sale by an underwriting? There is also the intermediate choice of paying dealers a fixed fee per share to solicit sub-

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scriptions from stockholders, the method customarily followed by General Public Utilities Corporation. In such event an investment banking house is usually named to head the group of soliciting dealers, which may include a large number of Street houses.

FINALLY, there is the "oversubscription privilege," an important device which has been used for years by Southwestern Public Service and which has come increasingly into favor with other utilities. This almost invariably produces a large oversubscription — more than offsetting the loss of subscriptions from neglectful stockholders who do not exercise their rights, and partially offsetting the risk that rights may become worthless in a weak market. While in some cases stockholders (or buyers of rights) must deposit a substantial amount of cash in connection with oversubscriptions, nevertheless the device proved very successful in 1953 as indicated by the table below.

Another new method which has developed in the past year or so is to open the subscription privilege to employees. This method has, of course, been heavily used by American Telephone and Telegraph

Company for many years. The stock is sold to employees on a partial payment basis at 25 per cent under the market, which program is, of course, successful in placing a large amount of stock. Some electric utilities have begun to adopt the idea of sales to employees in a limited way over the past year or so, and the program has apparently been successful, although complete data are not available. For those interested in this method of financing, the prospectuses on the 1953 issues, shown in the table on page 589, might be studied.

REGARDING the relative cost of financing through the use of different methods, complete data on individual security offerings are available in the Ebasco publication. In addition to a full description of the offering, this shows the underwriter's compensation per share and as a percentage of the public offering price, the estimated expenses per share, etc. In the case of subscription offerings the market price is given a month before the offering date and at the date of offering to indicate price deterioration as an element in cost of financing. The success of the offering both with respect to the per cent taken under primary subscription and through



<i>Date of Offering</i>	<i>Company</i>	<i>Regular Subscription</i>	<i>Over- Subscription</i>	<i>Total Subscription</i>
Jan. 9	Ohio Edison	94%	39%	133%
Feb. 3	Louisville Gas & Electric	90	46	136
Feb. 4	Southwestern Public Service	92	26	118
April 9	Middle South Utilities	98	45	143
April 17	Southern Company	90	50	140
April 21	Oklahoma Gas & Electric	97	39	136
May 6	Northern Natural Gas	97	33	130
July 20	Boston Edison	93	32	125
July 24	United Gas Corp.	99	91	190
Sept. 10	Central Hudson Gas & Electric	72	40	123*
Oct. 1	New England Gas & Electric	93	64	157
Oct. 8	Rockland Light & Power	87	50	137

*Includes employees' subscriptions.

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oversubscription is also included. Earnings per share are shown before and after giving effect to the financing and the offering price earnings are shown on the same basis, together with the dividend rate and yield at the offering price.

IN studying underwriters' compensation it is hardly worth while for the student or the utility executive to attempt to use averages for a large number of issues. The practical method used in Wall Street is the "comparison method" — the comparison of issues which are similar to the one which is currently being offered or planned.

In making such comparisons it is important to pick issues which are similar in general quality, in size, etc., to the contemplated offering, and to pay considerable attention to market conditions at the time of offering. Usually such comparisons are limited to the most recent similar issues, since the degree of success of the most recent offering is an important factor in judging the methods employed, or the "spread" to be required by the bankers for their underwriting.

THUS it would hardly be worth while to attempt an exhaustive study in this article of underwriters' compensation for stand-by services. For example, we find that in January, 1953, compensation for five subscription offerings ranged from .42 per cent of the subscription price to 3.50 per cent. Expenses per share also vary considerably — for example, in March, 1953, expense varied from 15 cents to 84 cents; naturally the amount depends principally on the size of the issue. The low figure of 15 cents was for an offering of \$28,000,000, while the 84-cent figure was for a very small offering of about \$250,000. With respect to the total cost of subscription financing, including the effects of price deterioration from the announcement date to the end of the subscription period, some valuable case histories have been prepared by John Childs, vice president of the Irving Trust Company.

Thus far the utilities have been remarkably successful in financing their immense postwar construction programs, without resorting to the "high-pressure" methods of the 1920's. Not only have they main-



<i>Offering Date</i>	<i>Company</i>	<i>Approximate Percentage of Offering Taken by Employees</i>
Jan. 8, 1954	Consumers Power5%
Nov. 27, 1953	Delaware Power & Light4
Oct. 15	Long Island Lighting	#
Oct. 7	Western Massachusetts Companies	**
Sept. 10	Central Hudson Gas & Elec.	*
Aug. 24	Wisconsin Power & Light	(?)
June 10	San Diego Gas & Electric	(?)
May 6	Northern Natural Gas1%

One hundred thousand shares were offered to employees compared with 685,648 offered to stockholders. The percentage taken by employees was not indicated.

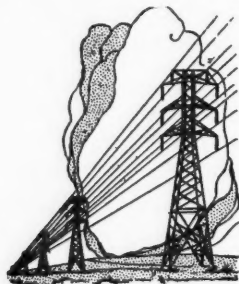
** Six thousand out of 128-316 shares were offered to employees who took 63 per cent of their portion.

* Twenty thousand shares (about one-eighth of the total amount) were offered directly to employees, who subscribed to 89 per cent of their share.

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tained traditional balance sheet standards, but in the case of many operating utilities which emerged from holding company control they have effected great improvement in financial structure, while at the same time obtaining necessary new capital. In some cases, it is true, individual

companies have been handicapped by unfair regulatory policies, but the regulatory picture as a whole is showing gradual improvement. The recent advances in security markets seem to augur well for the continued success of the utility finance program in 1954.



The Endurance of Our Free Institutions

"THERE certainly is still much strength in American institutions. While we have used up important reserves, there is still enough material strength, and probably what is more important, there is enough courage and love of freedom to give us hope and confidence that the American people will put up a successful fight to restore their freedom, if only they can be led to see where the present trend and course of affairs are leading them.

"Those who counsel blind optimism, who silently conspire to conceal the terrible unbalance and dangerous distortion of our present economic situation, in the vain hope that some miracle will free us from the penalties which all experience and common sense tell us inevitably result from spendthrift prosperity . . . are adding to the hazards ahead.

"That is why we must insist that now, at the beginning of 1954, our leadership must give the people a realistic diagnosis and make a courageous attack upon our accumulated problems.

"A review of the history of the past two decades suggests that we should 'look both ways before proceeding.'

"If we will fearlessly and honestly take such a look we cannot but see that the sources of much of our present prosperity are destructive, spendthrift policies.

"Looking to the future, we should see that those policies, if continued, will lead us to a worse depression than we experienced in the 1930's. And this time, not only the freedom of the American people, but the fate of a civilization is involved."

—W. C. MULLENDORE,
Chairman of the board, Southern California
Edison Company.



CALIFORNIA UTILITY REGULATION,
**Yesterday, Today, and
Tomorrow**

The California commission has set a brisk pace in its progressive evolution from a quiet railroad commission of yesterday to a dynamic controlling agency with full jurisdiction over all major utilities in the Golden state. Its experience gives rise to some speculation on the outlook of commission regulation generally.

By FRANK C. SULLIVAN*

YOU cross a green-carpeted reception room, pass through the always open door to the private office, and sit down in a heavy walnut chair, facing the person at the large, glass-covered walnut desk.

The room looks out upon San Francisco's famed Civic Center, with its formal gardens and fountains, where idlers while away sunny days watching the pigeons strut and preen themselves on the expansive brick-covered walks; upon the towering city hall with its dome,

which the late Mayor Jim Rolph bragged was higher than that of the national Capitol at Washington; upon the civic auditorium, and the city library.

The setting—composed of massive granite and marble buildings, each topped by the national banner and the California Bear flag whipping in a steady bay breeze against the clean blue sky—suggests that here is one of the nerve centers in this, perhaps the most surprising, the second most populous and possibly the wealthiest of American commonwealths.

It must no longer be regarded as either Hollywood press agency or California

*Public relations counselor, San Francisco, California. For additional personal note, see "Pages with the Editors."

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auctorial pride to declare that here, where the cool green Pacific laves our western shores, a new empire is definitely in the making and new patterns of living are being developed, in an area which statisticians predict will pass New York populationwise within the decade.

THE upward-trending rate of population growth line, from 1860 to 1950—actual, and with the next ten years estimated, as plotted on an engineer's chart—reminds one of nothing so much as the manner in which a new jet-engined plane leaves the ground and heads aloft for stratospheric maneuvers.

The line moves gradually higher for the half-century from 1860 to 1910, when California grew from a few hundred thousand to something less than 3,000,000; but along about 1910 something happened, and that something is graphically portrayed on the chart.

Maybe a lot of people suddenly became California-conscious at exactly the same point in terrestrial time, loaded up the Model T, and headed for Hollywood and Vine.

Whatever it was, figuratively speaking the unknown pilot at the controls of Destiny's jet pulled sharply upward and headed aloft at a 45-degree angle.

In the one decade, 1940-50, the increase amounted to 3,700,000; for the period 1950 to 1960 another 3,400,000 is expected. This will more than double the state's population in the 20-year period since 1940, forecasting the 1960 population at 14,000,000.

WHAT this human flood tide of staggering proportion has meant in terms of utility problems was well-known

to the figure at the glass-covered walnut desk overlooking San Francisco's Civic Center, for he was Richard E. Mittelstaedt, who very recently retired as president of the California Public Utilities Commission.

An administrator of recognized ability, he had served a longer period as president of the commission than any other commissioner in its 43-year history.

He is a man spare in body, spare in speech, with large blue eyes and a personality which shows a military career—a career that began in 1903 when he joined California's National Guard, and comprised service in two World wars. Upon his retirement, just before joining the commission in August, 1946, he held the rank of Major General, United States Army.

Between wars he served as California's Adjutant General through appointment by three different governors, and for sixteen years headed the Sacramento City Water Department.

Perhaps partly because of his military experience, General Mittelstaedt was recently appointed chairman of the NARUC Special Committee on Development and Use of Atomic Power in the Electric Industry—a post bound to be both forward-looking and important.

OTHER members of the commission have comparably interesting backgrounds. Commissioner Justus F. Craemer was appointed to the commission in 1939 and is senior in point of years, enjoying the benefit of fourteen years' experience in the regulatory field. Formerly a southern California newspaper publisher, he held several state offices, including that of Building and Loan Commissioner, before

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his appointment. He was commission president in 1942, served as president of the National Association of Railroad and Utilities Commissioners, and has served as chairman of its special committee to study effect of taxes on utility rates. In this field he is regarded as an authority.

Commissioner Kenneth Potter was first appointed in February, 1947, after serving twenty years as professor of social science at Fresno State College, in the San Joaquin valley area. He is a member of two NARUC-ICC co-operative committees, and has specialized mainly in the field of railroad, transit, and truck rates.

Commissioner Peter E. Mitchell, prior to appointment in January, 1951, was a Sacramento, California, businessman and had served nine years on that city's council. He came to the commission from the California Employment Commission and its Unemployment Appeals Board, of which he was a member from 1948 until his appointment to the public utilities commission. To him recently was assigned the responsibility for presiding over public hearings on the application of the Pacific Telephone & Telegraph Company for some \$53,000,000 in additional gross earnings.

Newest member of the commission, although no stranger to California state government and its procedures, is Verne

Scoggins, who for some nine years was secretary to former Governor Earl Warren, now Chief Justice of the United States Supreme Court. Scoggins is familiar with California trends through a long background as one of the editors of the Stockton, California, *Record*, a leading daily newspaper.

SERVING with the commissioners is a staff of some 560 persons, mostly of Civil Service tenure, and liberally salted with engineering and rate specialists whose length of employment with the commission in several instances varies from periods ranging from ten to twenty-five years.

In this connection, perhaps one of the most significant aspects to the analyst, when considering the California regulatory body, is the fact that its beginnings extend back a long time. Around commission corridors it is never forgotten for long that the present body is an outgrowth of a predecessor commission which began regulating common carriers in the state as early as 1879—eleven years before the Interstate Commerce Commission came into being.

Creation of the present commission came about by constitutional amendment during the first year of the late United States Senator Hiram Johnson's term as



Q "... perhaps one of the most significant aspects to the analyst, when considering the California regulatory body, is the fact that its beginnings extend back a long time. Around commission corridors it is never forgotten for long that the present body is an outgrowth of a predecessor commission which began regulating common carriers in the state as early as 1879—eleven years before the Interstate Commerce Commission came into being."

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governor of California. Johnson, a disciple of Theodore Roosevelt, had much to do with establishing the present commission.

The California commission differs from some state commissions as its duties and obligations are established in the state Constitution.

ALTHOUGH its origins are rooted in an historical reform movement, the growth of the commission, which has been concomitant with the growth of the state and its utilities, has been marked by the development of a body of decision and a consolidation of viewpoint. Out of the slogans of the early days, out of a multitude of legal skirmishes and decisions, out of the thinking of commissioners of diverse types, with diverse political and economic views, has come a generally accepted commission watchword which, as well, or perhaps better than any other word, sums up the commission's attitude toward rates, regulation, the consumer, and investor interests.

That word is *reasonableness*.

At least it is the word which is the most frequently alluded to in public pronouncements of commissioners and commission employees.

The commission, in operating under the California Public Utilities Act, has had before it the following language from that act:

All charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished, or any service rendered or to be rendered shall be just and reasonable.

IN recent years, with all California utilities struggling to provide service during the greatest of all westward migrations, the standard of "reasonableness" has been applied by the commission to determine rates and earnings. The commission, in most instances, seems to have striven for a median range with instances where its allotments on earnings were somewhat on the low side when compared to other states.

There are signs that some improvements along this line are under way. In the meantime, the utilities of California have managed to borrow moneys and sell securities which have enabled them to expand plant so that in two of the predominant fields—namely, electric power and natural gas—utility executives are able to state that they have not refused service to anyone.

On this point, the writer recently heard the views of a California public utility executive, a leader in the task of bringing to California customers the natural gas so badly needed by California's growing population.

This man's companies promptly undertook, upon the close of World War II, to import natural gas, realizing that the need would be pressing.

Speaking not for publication, but before a group of other executives, he said:

In meeting the impact of caring for our share of the 350,000 new residents swarming into California each year, there is one phase in which I take pride, on behalf of our companies. At no time have we been compelled to say, "Sorry, but you'll have to wait for your meter connection for an indeterminate time. We haven't the gas—or we haven't yet



Telling the Story of Regulation

"RECENT scientific opinion surveys support the view that much educational work must be done to acquaint the public with the various factors which influence regulation. One of the real difficulties has been the problem of simplification—of translating what is essentially a legal and technical process bordering on exactness down to the level of everyday thought and understanding. However, the task is under way. It presents a definite challenge for those who are engaged in coming to grips with it."

built the mains, or the compressor stations." The plain fact is, we have given immediate service on natural gas to all comers upon demand during the greatest population boom in history. This has required many things—immense borrowing, tremendous building, a continuous pressure for adequate rates to support the earnings structure. But we have managed to do the job so that the individual has not been required to wait extra days for his service. That is a great record.

How great can be visualized from the figures on natural gas growth in California.

In the decade 1940-50, the number of natural gas customers increased 52 per cent, and the sales of gas 168 per cent.

In 1952 some 493 billion cubic feet of natural gas was used, half of it from out-of-state sources, compared to only 41 per cent from beyond California borders in 1951 and 28 per cent in 1950. At present, the outlook is for the importation of $1\frac{1}{4}$ billion cubic feet of gas per day into the state, to serve its insatiable requirements.

No wonder the gas company executive took pride in the fact that his companies had managed to keep ahead of the stupendous demand.

The commission itself sensed and understood the problems of the utilities in

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this changing period and gave its ready approval for the necessary certificates and financing.

Sometimes, difficulties for both utilities and the regulatory body have been caused by the opposition of cities and counties to the necessary rate increases. This opposition has, at times, appeared to be rooted in political expediency, resulting in vocal assaults on the rate filings in the press and sometimes rather demagogic statements made for public consumption during the courses of hearings.

IN light of this record, the appearance and address of Commissioner Mitchell before the annual convention of the League of California Cities at San Francisco last October 21st have points of interest.

Particularly significant was his suggestion that a utility be given a chance to make its showing before a determination was reached as to whether an application was meritorious. This apparently had reference to the practice of some publicity-seeking city officials leaping into print to oppose requested rate increases when the ink on the application to the commission was still damp.

Another delicate reference by the commissioner implied that the commission would be obliged if the cities would kindly indoctrinate their constituents in the procedures and methods by which the commission endeavored to fix rates in the public interest.

But let the address speak for itself on these points. Here are the commissioner's words, with emphasis supplied by the writer:

Everyone at this conference today

MAY 13, 1954

realizes that during the present inflationary period prices have moved steadily upward. All of you who are familiar with merchandising know that if you pay continually higher prices for labor and materials and if your taxes keep rising, you must do one of three things: Charge your customers more, operate at a loss, or go out of business. Utility companies cannot go out of business without complying with the requirements of law. They cannot raise prices until they receive permission. I am sure none of you believe it is a healthy situation for them to operate at a loss.

Certainly fairness and the American system require that private enterprise be given an opportunity to present its case before any decision is made as to whether the rate adjustment sought by the company is justified. It seems to me to be axiomatic that it is impossible to judge the merits of an application without knowing and considering the basic facts. In passing upon an application for a rate adjustment, the commission must accord to the utility and to all parties due process of law. The five commissioners, just like a court, must issue a decision based upon the law and the facts. The deciding process of the commissioners may not be shared with any other entity or person.

It seems to me that city officials, when the opportunity arises, can render extremely valuable service to their communities by helping to inform the public of the procedures employed by the commission in all matters pending before it.

THE problem of adequate rates to support expansion programs has not

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been solely that of the natural gas industry, despite the fact that, uniquely, this industry revealed a higher rate of growth in gas customers than was the population growth; and natural gas sales increased at a rate faster than the growth of population and customers.

Both the California electric power and telephone industries have similar stories to tell.

From 1940 to 1952, according to commission records, electric customers increased 74 per cent, kilowatt-hour sales 191 per cent, and kilowatt-hours per customer 67 per cent.

The telephone industry reported stations served in 1940 totaled 1,765,000, as compared to 4,270,000 in 1952, an increase of 142 per cent. Stations per 100 of population increased from 25 in 1940 to 36 in 1952, while total calls increased from 3,089,000,000 in 1940 to 7,378,000,000 in 1952, an increase of 139 per cent.

The growth figures cited have required huge additions to plant. Taking the plant investment of the gas, electric, and telephone utilities in California at 100 per cent in 1952, 59 per cent of the gas and electric plants were added in postwar years, with 41 per cent in each case existing in the prewar period, while 71 per cent of the telephone plant was added in the

postwar period in contrast to the 59 per cent figure.

To support the tremendous expansion program of the utilities, the commission has authorized about \$175,000,000 of rate increases on an annual basis in the postwar period, which includes \$43,000,000 in the year ended June 30, 1953.

ONE of the principal problems of both commission and staff men in processing the applications leading to authorizing such increases has been the problem of *timeliness*.

Investors who have purchased into capital structures for earnings purposes have, at times, been irked at delays in the regulatory process.

That the commission and its staff understands and sympathizes with this point of view is explicitly set forth in the commission's last annual report for the fiscal year ending June 30, 1953, which relates steps taken to alleviate delay.

The report says at one point:

Reduction in time elements in the consideration of rate increase applications is in the public interest because, if a company's petition is meritorious, an undue delay may seriously injure the utility's credit standing, making the cost of new capital higher, or might even lead in the case of smaller utilities

“THE problem of adequate rates to support expansion programs has not been solely that of the natural gas industry, despite the fact that, uniquely, this industry revealed a higher rate of growth in gas customers than was the population growth; and natural gas sales increased at a rate faster than the growth of population and customers. Both the California electric power and telephone industries have similar stories to tell.”

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to undue personal hardships or possibly bankruptcy.

It is better to make moderate rate increases promptly than to endeavor subsequently to restore impaired credit at possibly greater over-all cost to the ratepayer in the long run. The reduction in time needed for rate case consideration also will benefit the public to the extent that time of the staff is thus made available for constructive work in obtaining safe and adequate utility services.

RECENTLY, the commission suggested ways and means whereby regulatory "lag," so objectionable to everyone concerned—ratepayer, since it threatens service; utility, since it deters swift acquirement of needed capital at reasonable cost; investor, since it delays adequate earnings; and, finally, commission itself, since it develops unnecessary criticism of the regulatory process—might be mitigated.

These suggested steps provide for quicker accumulation of facts, reduction of issues to the basic; careful preparation by the utility of its application and the accompanying exhibits; and, what is perhaps most important, simultaneous internal commission changes.

Such changes were of an organizational type designed to concentrate most effectively on preparation of staff evidence. To this end, internal management surveys were made in the California commission to develop the best organization, supervision, and training of staff looking toward optimum staff effectiveness.

E. F. McNAUGHTON, director of the commission's utilities division, explains that a rigid scheduling procedure

on cases has been set up and appears to be working, although it is "too early" to determine what final experience may show. He explains:

Scheduling is based on a combination of filing date and a preliminary analysis of relative financial needs of each applicant.

Time scheduling estimates are relatively accurate because of past experience, and definite commitments on completion of staff reports can be made.

The actual scheduling promotes efficiency and prevents lost motion. The establishment of definite commitment deadlines by unit head supervisors places responsibility and encourages better time utilization.

It also makes clear, under backlog conditions, which work can be done and which must be deferred. This permits the commission to decide the order of procedure of staff work assignments.

In actual workout of the plan since September, 1953, all commitments of the staff have been met on time. Furthermore, the backlog of rate case work, which was seventeen months in September last, has been cut to six months, largely through increased staff. New rate filings, however, are currently holding this backlog at about six months. *It is too early to determine what final experience may show, but it is the objective to become current so staff work on a rate-fixing proceeding may be started promptly after initial filings.* (Emphasis supplied.)

GIVEN, then, a willingness on the part of everyone to work toward swifter processing of rate cases, what of earnings?

CALIFORNIA REGULATION, YESTERDAY, TODAY, AND TOMORROW

Early this year, the commission released to the press a compendium of interesting notes termed "High Lights, California Utilities and Regulation." In this, the following statement appears:

Basic rates of return range from 5.55 per cent to 6.1 per cent for major companies. Additive to these have been allowances of 0.2 per cent to 0.6 per cent for declining trends of earnings. Thus, in a recent case a return of 6.7 per cent was allowed on a past test year rate base to yield 6.1 per cent for the future.

This seems to be a fair statement of the commission's decisions on return.

As might be expected in this sphere of regulation, there is some disagreement as to whether the returns quoted are actually compensatory for the long pull.

Utility thinking, by and large, seems to be that while the returns, as given, *may appear to be just and reasonable at the time*, they, and the dollar earnings they symbolize, are actually somewhat fictitious in nature since, with constantly rising labor and equipment costs, coupled with the continuous necessity to build new plant to care for unprecedented and constant growth, there is almost immediate earnings "slippage."

SUCH "slippage" of net, even though slight, is a matter of grave concern since the return itself is generally in the lower edges of the "zone of reasonableness" and thus it takes only a nudge downward to make the net unreasonably low.

When this occurs, the utility is required to file again for rate relief. Such continuous applications, coming along within

only a few months of one another, *give the public the impression the utility is never satisfied, is always seeking higher and higher rates.* That presents a distorted picture of the reality, and also constitutes bad public relations for all parties involved.

IN addition, such continuous applications, caused by giving net returns just a shade above the bare necessity at the time, mean more work for commission staff and hence accentuate the problem of regulatory lag. One utility executive explains it this way:

Most utility rates today, despite an inflation which has halved the purchase value of the dollar, are actually bargain basement rates compared to anything else you want to name. In no other section of the economy can the consumer buy so much with so little. With the maintenance of that principle, regarding utility rates, no one will seriously disagree. We desire to continue to maintain them at bargain levels. We think, however, that our own utility rates are so low that a slightly higher return would prove healthier than a net return just over the edge of reasonableness. In other words, if we were allowed a little above the minimum, we could endure "slippage" for a longer period.

"Slippage" in these times seems inevitable.

Another point: Our financing would be more advantageous with slightly better returns and in the long run the consumer would benefit from better service made possible by more advantageous financing and advance construction.

There is certainly no regulatory dan-

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ger since the commission could quickly bring about rate reductions if they were needed, which, however, is a remote possibility in California utilities with a constantly rising price structure and fixed rates.

IT will readily be understood, of course, that each utility company—and each type of utility—presents a separate problem. While it is certainly true that some utility services are definitely of the bargain basement type as to cost, others may conceivably be approaching the point of actual consumer resistance. No generalization can apply here. For example, the story of declining passenger revenues on city transit lines is too well-known to review. Higher and higher fares are the order of the day, including those municipal companies enjoying subsidies. As the fares rise, more and more riders take to the private automobile or car pools.

Perhaps the California commission picture can be summed up in the words of a utility chieftain who has made quite a study of the commission, its staff, and its decisions:

I think commission net returns should be somewhat higher than allowed for many reasons. But, while I believe this, I also believe the commission is a good commission, with the desire and the ability to do a good job for both the investor and the consumer interest.

WHAT of the future with regard to regulation in California?

There is little question but that the state's growth will continue to require utilities to expand services.

If there is a slight leveling off in prices, as there may well be, this will have little influence on the revenue needs of the utilities, since the full impact of the method of pricing their product always lags behind the point of time of the cause.

This phase is being watched closely by some utilities, which are doing everything possible to educate the public in the many phases of the regulatory process.

It is their belief that an informed public—a public which understands economic facts—is essential to the efficient functioning of regulation. In ignorance there is danger—a danger which serves the purposes of those enemies of our system of economy and government who would burn down the house to destroy a mouse in the basement.

RECENT scientific opinion surveys support the view that much educational work must be done to acquaint the public with the various factors which influence regulation. One of the real difficulties has been the problem of simplification—of translating what is essentially a legal and technical process bordering on exactness down to the level of everyday thought and understanding.

However, the task is under way. It presents a definite challenge for those who are engaged in coming to grips with it.

But, without challenge, there is no opportunity, and without opportunity there are no rewards.

I Am a Superintendent of a Steam Power Plant

In this article the author has interviewed an anonymous superintendent of an electric plant. How did he get his job? How does he like it? What does he do on the job and off, and what does he think he will do ten years or more from now? These and other questions are answered in this entertaining account of what makes a plant superintendent tick.

By HENRY F. UNGER*

IF you think the ordinary citizen experiences anxiety when his lights go out during a storm, think of the superintendent of a large electric generating plant at about the same time.

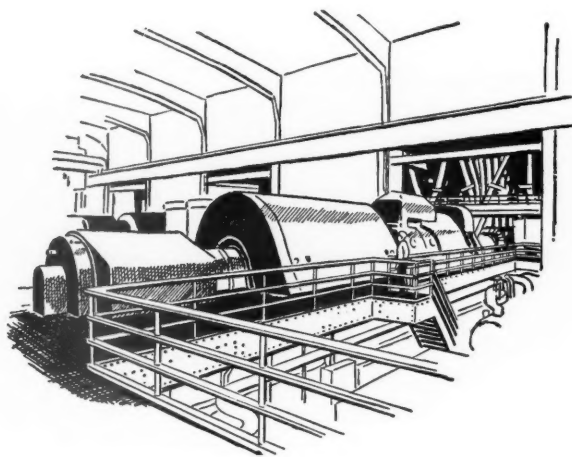
I'm such a person and, believe me, there are few more trying moments at the plant than the time when various parts of our transmission facilities kick out and there occurs what we call a load rejection—a time when generated electricity cannot go to the places to which it was in-

tended and to which it was going moments before.

IT is during this time that five jobs must be done simultaneously by the superintendent and his crew to rectify the unbalance at the steam plant. It is during this time that I could easily spend anywhere from twenty-four to thirty-six hours at the plant without seeing the interior of my home.

These are the moments when I must call on my experience and theoretical know-how and apply it rapidly and efficiently.

*Professional writer, resident in Phoenix, Arizona. For additional personal note, see "Pages with the Editors."



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You might say that I am rather unusual in this field of being superintendent of an electric generating plant. Most fellows are in the field anywhere from ten to fifteen years before landing a similar job. I've been fortunate in getting mine in about five years. But I can honestly say that I'm a typical superintendent of such an operation and despite its tensions I enjoy my work and feel that I am almost at the heart of a thriving utility which is helping to make a vast area in the West a prosperous place in which to live.

I FEEL in my position a certain thrill in being an intimate part in generating and sending out electricity which makes life so much easier for people, advances our civilization, and even has an important part in lengthening our lives and even tends toward developing more good companionship in social pursuits away from a bygone era of long hours of toil.

To one who has perhaps never visited a modern electric generating plant, the workings of this electricity maker seem mysterious. Perhaps, in a way, this applies to myself and my crew. Electricity is a mysterious force, whose effects we know and, although in the field and familiar with its workings, I still marvel at the force.

I am a superintendent of an almost new modern outdoor plant. Even before I was placed in charge there, several years of work as a switchboard operator, plant engineer, and even assistant to a superintendent at another plant groomed me for this important task.

It is this preparation for the job that is so vital. I must control the operations of a plant worth millions of dollars. Stupid moves and bungling acts could mean great

money losses and loss of company prestige.

I've got to be on my toes.

I'LL never regret my solid four years' course in thermodynamics in college. At the time I had no idea that I would be in charge of a plant as now. But I had studied power plant design, machine shop design, and even took field trips to various power plants, acquainting myself with every major phase of operation. It was a good substantial course in mechanical engineering which could have taken me in various directions.

I can now honestly say, after years of experience behind me, that I could have somehow gotten by without the college training but not without the practical experience of actually helping to run the generating plant. It was during those years of taking orders from my bosses that I learned the intricacies of handling a complex switchboard, of knowing where certain piping was located, of knowing how to act under stress, and, most important of all, of how to get along with employees who were also responsible for handling this valuable chunk of machinery and detail called an electric generating plant.

Naturally you don't take over a brand-new plant without some degree of trepidation. I was no different. It was good to know, however, that I was in a field in which the customer was still getting his money's worth. I quickly discovered that the price of power was the same or perhaps lower than it was twenty years ago. Higher pressure temperatures in the plant improved the efficiency of the plant, requiring less fuel for the same number of kilowatt-hours. And the higher this pres-

I AM A SUPERINTENDENT OF A STEAM POWER PLANT

sure, the cheaper became the generation of the electricity.

FROM experience I knew that a personal relationship must exist between superintendent and his crew. I knew also that in such a compact structure as our generating plant, this relationship must be one of friendliness and co-operation.

In particular I had to know the foremen as closely as possible. They are my right-hand men. In our plant we need but three men (operators) to a shift because we are almost all automatic, but don't let this fool you. Behind these men there are such personnel as a statistician, the field clerk, an electrician who checks light bulbs and switches, an instrument technician, and mechanical maintenance men who comprise a first- and second-class mechanic.

As with other superintendents, I had to follow certain routines before I felt that I could proceed with full speed ahead. I had to learn the basic cycle of the plant, the specific items of equipment, and the peculiarities of design. For instance, I had to know how many feed water heaters are used and to uncover more knowledge about the cooling system. Our plant, for example, uses a canal that adjoins it for irrigation purposes as well. This water runs into the plant, cools the steam, and then is sent out into the canal again for

irrigation use. We have a cooling tower that gets a big play in the winter months when the canal water is low. I had to check also on the fuel system and whether it was doing the job. We use gas and are hooked up for possible use of oil.

Many plants depend on cooling towers and some have been in operation for thirty years and are still operating at peak efficiency.

UNLIKE the car owner who has but to learn how to drive his new car without necessarily needing to know its innards, I almost had to live with the new "baby." I recognized the fact from my own experience that the superintendent is not annoyed by the crew when everything is functioning smoothly. It is only when difficult problems arise that the crew comes running to the superintendent. I was determined, as must any similar superintendent, to know the plant as well as possible. It took several weeks to know the personnel and to learn the various piping of the plant on paper. It required months of actual inspection to know the piping close-up.

So that my future headaches in running the steam plant would be minimized, I knew that I had to select topnotch employees to help me. I knew too that they must familiarize themselves with the op-



Q "FOR responsibility you can't, as far as I am concerned, outdistance the job of superintendent of an electric generating plant, but for sheer satisfaction of knowing that your work is doing a tremendous amount of good for thousands of people, my job gets the nod. The next time you hit the switch for your lights in your home, think of the guy who has to keep the intricate machinery in motion so that electricity can be generated. I like to think that I am a friend to thousands of citizens because of my work."

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eration of the plant as I did and still continue to do. For six weeks we conducted a school for the operators. They were required to study drawings of the plant, figure out why it was built in its present setup, and study how it was related to other phases of the work and why the piping was so arranged. I know that the new men saw the tyrant in me when I ordered that they must memorize the drawings and then locate the pipes. It was hard work for the men, but they have since thanked me many times. They learned the plant inside out and now any breakdowns become less a nightmare.

THE value of blending the practical with the theoretical became even more evident to me through this school, and henceforth all newcomer operators must follow the same routine. In fact, it is about two months before a new operator is permitted to handle a valve. It takes him about a month to learn the paper work.

My henchmen in this work are the auxiliary tender, the control room operator, and the shift foreman. On them I depend implicitly to handle the other men.

If you have ever been inside an electric generating plant, you will wonder how I can keep my finger on all operations of this very complex machinery. Actually, there is an electric control circuit which is equipped with protective devices such as boiler control. This equipment, you might say, replaces brain power. Of course, in the final analysis the directions imprinted on the machinery must be put into motion by the crew.

Naturally, I am responsible for the extremely valuable machinery. For instance, you are reminded of the expensive

turbine generator. To overhaul it, it can be removed by a crane in 25-ton chunks. To break any one piece would probably mean a 2-year wait until another piece of this delicate machinery would arrive, and, of course, I would be looking elsewhere for employment.

Superintendents have problems everywhere. In some plants, it is the fuel slagging up in the boiler. One of my major problems is to see that the water treatment is set within precise limits and to see that the turbine generator is protected from temperature change. If this isn't watched carefully the equipment could very well be converted into scrap iron.

To the casual visitor who sees me in my modern, well-lighted office at the steam plant, the job of superintendent seems easy. Actually, a lot of my duty revolves around paper work, reports of previous day's activities, of planning for future maintenance, of electricity scheduling for the future. Here in the Southwest I have to plan my operations in the winter months for summer's peak load, and in the winter months I have a chance to do the necessary overhauling when the load becomes lighter.

Every month I try to conduct a foreman's meeting. At that meeting I must impress the foremen with the need for even more safety conditions, to squeeze out the greatest efficiency from the plant without hurting anyone, to decrease the costs of operation and maintenance. It is during these meetings that grievances are aired and a closer union is effected between myself and the crew. If I hear that certain employees are not getting along, I take stern action because this type of undermining cannot be tolerated in a

A Superintendent's Responsibility

"No utility company likes to close down its plant when the demand is the greatest. Mine is in the same category. It is my job to keep this big electrical generating giant operating, turning out thousands of kilowatt-hours for the customers. When you know that much of the success of your company weighs on your shoulders and your ability to run one of its main pieces of equipment, you remain alert and constantly study to improve your plant and to be ready to take action when it shuts down."



steam plant operation. Too much is at stake.

It is with this in mind that I choose foremen who possess qualities that tie into our operation. They must have an aptitude for things mechanical, have certain leadership qualities and an aptitude for learning, and above all must have the ability to get along with others. We operate on the basis of two days off and six days on for the crew.

YOU might wonder whether there is a potential danger in generating electricity. You are right. There is. I recognize these dangers and take every precaution to prevent them. For example, a boiler might explode. We work with high pressures and our crew men walk by mains that might break open in a small hole and yet the hot water might injure them. To prevent these accidents I constantly preach the gospel of safety of self; safety

in equipment. I would prefer to shut down any faulty equipment and repair it than to allow it to function and become a menace to my employees. I can depend on my men because of our thorough safety training but we cannot always depend on the equipment.

This safety-minded program that I like to pursue for the protection of my men is pushed even toward the protection of visitors. We like to have visitors at our steam plant and enjoy explaining the operation of the plant, but often I must exercise considerable self-control to keep from revealing my impatience.

As the superintendent of a plant like ours, I have to do my share of escorting friends around the plant. The questions often make me grimace and make me contain a raucous outburst. One day a young woman asked me if we contain the electricity in water. She had seen a water storage pond outside. Another man,

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after spending two hours in a tour of the plant asked, "Do you really need a boiler?"

THE psychology of guiding visitors through the plant must be subtly tactful. I can never make a teacher look stupid before her class and rarely do I argue with the visitors. I warn visitors to keep their hands in their pockets because of the danger involved. This usually brings results.

Biggest headache is the nonthinking individual, part of a group, who enjoys playing with the instrument panel. During a recent tour of businessmen, not familiar with a generating plant, one of the men was seen to turn a switch to the horror of the operator. Fortunately, the switch was not connected. This action could have unloaded the load turbine and caused consternation to the plant and the crew.

I most enjoy discussing the plant with men in a similar field. They listen carefully and ask questions. Generally I exchange ideas with other superintendents who visit the plant and then put the ideas to work in my plant.

Because of the noisy nature of our plant, I have learned to shout at home and after a particularly long visitor tour will develop a sore throat.

To the superintendent of an electric generating plant such words as turbogenerator, boiler, evaporator, air ejector, deaerator, boiler feed storage tank, and other technical expressions are in an everyday lexicon. My plant's steam generator is designed to generate 350,000 pounds of steam per hour continuously, with a maximum capability output of 375,000 pounds of steam per hour for a 4-hour peak at 905 degrees F. total tem-

perature. It has a water-cooled furnace; a 2-drum bent tube boiler with a two element superheater; a regenerative air preheater; combination fuel burners which will operate with either oil or gas; and automatic combustion, feed water, and superheat control. A constant speed, motor-driven forced draft fan with vanes supplies air to the burners and a constant speed motor-driven induced draft fan with louvers delivers the flue gases to the self-supporting steel stack. Both fans are located at ground level.

My turbogenerator is designed for outdoor operation with a walk-in housing over the head end of the turbine. For the short period each year when there is a deficiency of cooling water in the canal adjoining the steam plant, the water is recirculated over the cooling tower standing near by. The hot air is driven through the top of this tower by means of revolving blades.

Always fascinating to the visitor is our control room. The 69-kilovolt electrical and mechanical control boards are located in the control room at the turbogenerator level in my plant. The mechanical controls and instruments are centralized in the control room on a schematic picture-type console board using miniature instruments. Recording meters and indicating gauges are mounted on a vertical panel directly behind the console. Pressure control relays are mounted behind the vertical board on the wall, with convenient access to all tubing. The mechanical boards are so arranged that one operator can bring the turbine up to load and change load without leaving his initial position. In addition, he is only 20 to 25 feet from the burner front.

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Our 69-kilovolt electrical control bench board is at right angles to the console board. All of the 69-kilovolt switchyard breakers and 2,400-volt auxiliary breakers are controlled and indicated at this point. All control wiring is carried in conduit and metal trays to the cable spreading and relay board room directly below the control room before entering the latter.

WHEN the generated electricity leaves the plant, it moves to the main transformer which ties into the 69-kilovolt switchyard generator position about 500 feet to the west. This switchyard is a major tie point on the system and consists of the generator, station stand-by, three tie feeders and transfer breaker positions.

It might be of interest that the electrical equipment in the plant is fully protected by relays and co-ordinated in accordance with accepted practice. The generator, main transformers, and auxiliary transformers are all protected with differential relays. The line, transformers, and generator relays are all mounted on the relay board in the cable spreading room.

Many factors can add gray hairs to my head. Chief among these is the storm harming the transmission of power. Perhaps it might be a boom truck that has a brush with a high line. Electric load is lost and adjustments are necessary immediately in the plant. It is at this time that I might be called at home and have to hurry out to investigate the damage and make suggestions for the repairs. Minor repairs are usually handled by our own crew. Otherwise we settle on the maintenance crew who hurry to the power plant.

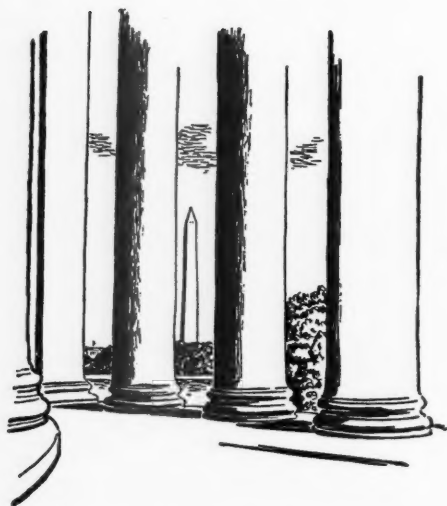
I don't allow my employees to risk their lives, perhaps in using new equipment or

repaired equipment, until I have checked it and personally looked it over. That might mean crawling into pipes and scrambling around uncomfortable places.

No utility company likes to close down its plant when the demand is the greatest. Mine is in the same category. It is my job to keep this big electrical generating giant operating, turning out thousands of kilowatt-hours for the customers. When you know that much of the success of your company weighs on your shoulders and your ability to run one of its main pieces of equipment, you remain alert and constantly study to improve your plant and to be ready to take action when it shuts down.

I've had my hectic moments in the plant as have other superintendents of plants but I am perfectly contented with the job. The pay is good, the security is solid, and our utility employee benefits are substantial. I've got a couple of children, a nice home, where I see what the electricity I help to generate does for the home; a wife who realizes that a superintendent of an electric generating plant is on call day or night; and a bright future.

For responsibility you can't, as far as I am concerned, outdistance the job of superintendent of an electric generating plant, but for sheer satisfaction of knowing that your work is doing a tremendous amount of good for thousands of people, my job gets the nod. The next time you hit the switch for your lights in your home, think of the guy who has to keep the intricate machinery in motion so that electricity can be generated. I like to think that I am a friend to thousands of citizens because of my work.



Washington and the Utilities

Steam for the Gas Bills

THE recent 4-to-1 opinion and order of the FPC in the Panhandle Eastern Pipe Line Case has put a certain amount of political steam back of the Ferguson-Oakman bills to force the use of an original cost rate base in valuing production facilities owned by regulated gas companies. But it is not expected that this impetus will result in blowing the bills out of either the House or Senate committee. For that matter, most of the agitation itself is discounted as being more inspired by forthcoming campaign politics in such gas-consuming states as Michigan than by any serious expectation that Congress would act. The controlling factor is the time element. The 83rd Congress is too far along in its second session and has too much major unfinished business to get into this type of controversy.

But the Senate subcommittee hearings were scheduled (May 6th, 7th, and 8th) on the bill by Senator Ferguson (Republican, Michigan) to freeze into law the 15-year-old formula of the FPC for evaluating gas reserves, which the commission threw overboard in its recent Panhandle Eastern decision. The chairman of the

Senate Interstate Commerce Subcommittee is Senator Purtell (Republican, Connecticut), which is a natural gas-consuming state. Other members are Republicans Potter (Michigan) and Schoeppel (Kansas), and Democrats Monroney (Oklahoma) and Pastore (Rhode Island).

Representative Oakman (Republican, Michigan), sponsor of a companion measure to the Ferguson Bill in the House of Representatives, even tried to head off the FPC decision—doubtless in anticipation that the commission majority was not going to abide by its traditional rate base approach in valuing company-owned reserves. He wrote a letter to the FPC, urging postponement of the decision until after the House committee held its hearings on his bill (HR 8685). In response, FPC Chairman Kuykendall said the commission could not, under the law, delay its decision for such reasons.

BUT other Congressmen and other parties continued to try to put pressure on the FPC along these lines. The city of Detroit, Wayne county, United Automobile Workers (CIO), all petitioned the commission to reopen the Pan-

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handle hearings. Senator Potter, a member of the committee which will hold hearings on the Ferguson Bill, also called on FPC Chairman Kuykendall to hold up a decision in the case. He wrote to Kuykendall that "in view of the fact that the Subcommittee on Business and Consumer Interests, of which I am a member, has set hearings, I am hopeful no action will be taken by your commission with regard to the policy of evaluation of gas reserves for the purpose of rate making."

Regardless of these hectic efforts to bottle up the commission's decision or have the commission reopen the case, and regardless of the heavily weighted preponderance of "proconsumer" sentiment on the Senate subcommittee, it is not believed that either the Ferguson or Oakman bills will get beyond the hearing stage. What can happen in the next session of Congress is another matter.

Panhandle Case Repercussions

THE actual impressions made by the FPC decision in the long-awaited Panhandle decision were varied. On one hand, the 4-to-1 commission order, reducing the company's proposed rate increase from \$21,400,000 to \$12,778,864 a year, doubtless left a lot to be desired on the pipeline company's part, not only on account of the low rate of return allowed (5½ per cent), but also because of refunds totaling at least \$32,000,000, which the commission directed to be made.

On the other hand, the action of the commission in departing from its original cost rate base approach in determining the return to be allowed on company-owned production has created a considerable stir in regulatory circles, both state and federal.

The FPC did not abandon its original cost rate base concept. What the commission did was to scuttle the rate base ap-

proach only as it applied to the pipeline company's own production facilities, and to substitute a commodity value or "fair field price" in line with what the company was paying for gas produced by others. Even so, the departure by the FPC majority from strict adherence to the original cost rate base concept, which it has followed for more than a decade, and rejection of its own staff's arguments for a continuation of that policy, were rulings of prime importance.

It may represent the first break in the direction of recognizing the current cost factor by a commission which has had as much, if not more, influence in molding guiding principles of rate regulation in the United States than any other commission. Also of importance was the commission's insistence on its liberty of action and discretion in changing its viewpoint from time to time over what constitutes a just and reasonable rate. The majority opinion stated flatly that the precedent of earlier decisions (doctrines of "*stare decisis* or *res adjudicata*") has no application in the field of administrative rate making.

THE voting by the commission's membership was of interest. Commissioner Doty went along with the majority except for a disagreement on one point, as to the treatment of accelerated tax amortization. Commissioner Draper dissented from the majority action in allowing any rate increase and particularly with respect to assigning a commodity value to the company-owned production.

One by-product of the commission's adoption of fair field price may be the preparation, by the commission, of a more workable approach to the regulation of producing companies if the U. S. Supreme Court should decide to require the FPC to take over such jurisdiction in its forth-

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coming opinion in the still pending Phillips Petroleum Case.

Clark Hill Counteroffer

REPRESENTATIVES of Georgia electric co-operatives agreed to meet with Georgia Power Company officials in the Interior Department late last month in an effort to solve a dispute over the sale and distribution of power from the government's Clark Hill dam. Recently, the co-ops presented their counterproposals to the government's plans for selling Clark Hill power to the Georgia Power Company, which would then sell it to the co-ops under rates fixed by the Interior Department. The co-ops suggested two alternative plans: (1) the company would wheel the power to the co-ops; or (2) the co-ops would make private arrangements with the company for distribution.

Interior officials expressed doubt that the co-ops could arrive at any working arrangement with the company. They nevertheless agreed to sponsor direct negotiations between the company and the co-ops at the urging of a member of President Eisenhower's staff, who sat in on the earlier meeting. It was believed highly unlikely, however, that a compromise satisfactory to the co-ops could now be reached. Georgia Power Company has made clear its unwillingness to enter into any "wheeling" arrangements. Interior officials still contend that the co-ops will be fully protected under the government's proposed contracts.

Interior Solicitor Clarence Davis told former Georgia Governor Ellis Arnall, counsel for the co-ops, that his argument that the government would lose control of the power and rates was "just not so." Davis insisted that the proposed contracts would be "just as valid on title (to the power) as a wheeling arrangement."

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More Money for REA

THE House last month followed the advice of its Appropriations Committee and approved an additional \$45,000,000 for REA electrification loans in the coming fiscal year. The extra funds were included in appropriations for the Department of Agriculture for fiscal 1955. The House's action boosted to \$100,000,000 the amount of new loan authorizations for electric loans. This amount, together with an estimated carry-over of \$45,000,000, probable rescissions of \$5,000,000, with a contingency fund of \$35,000,000, will make a total of \$185,000,000 available for such loans during the coming year. No change was made in the \$75,000,000 budget request for telephone loans — an increase of \$7,500,000 over 1954 appropriations.

The Department of Agriculture was criticized in the committee report for not spending enough money on its so-called "action" programs, including REA loan programs. This was in sharp contrast to the committee's report on the Interior Department, which was accused of supporting unduly expensive and unnecessary projects.

While Interior was urged to encourage project developments by private and local interests, the same committee's report on REA expressed concern over reports it has received that "private power sources are placing more and more restrictions on the activities of REA co-operatives as a condition to negotiating contracts to supply the necessary power." Thus is highlighted the political appeal of REA, as compared with that of the old-line Interior bureau setup. Authority to provide generation and transmission loans should be "fully utilized" by REA, the Appropriations Committee added, "in order to assure adequate power to REA co-operatives."

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Wire and Wireless Communication



AT&T Official Urges Further Tax Revisions

FURTHER changes in the House-passed general tax revision bill have been suggested by an American Telephone and Telegraph Company official, testifying before the Senate Finance Committee. Alexander Stott, AT&T comptroller, urged elimination of the 2-point penalty surtax on consolidated returns, modification of the limitation on investments for employees' trusts, changes in the provisions for accrual of real property taxes, and restoration of a provision in the present code, omitted by the House, dealing with consolidated taxable income.

"We feel strongly that a serious inequity is perpetuated in this bill by the continuation of the 2-point penalty surtax on consolidated returns," Stott told the committee, noting that President Eisenhower recommended in his Budget Message that the tax be discontinued. Stott said the consolidated return merely recognizes that it is entirely proper for an enterprise conducted by a company and subsidiaries to be considered for tax purposes as a single group. The experience of AT&T over many years clearly shows that separate operating companies, each responsible for providing telephone service in a particular area, are necessary for the

furnishing of the highest grade of telephone service and result in many benefits to the users of the service. Moreover, because of legal, operational, or other business needs, Stott noted, many other industries also have no choice but to operate through subsidiaries.

"Under sound and commonly accepted accounting principles, the operations of such a group of companies are correctly reflected by consolidated balance sheets and income statements," Stott declared. "The Congress, in providing the option of determining taxable net income through consolidated returns, has recognized this fact. There is no logical reason why consolidated returns should be burdened by a penalty tax for the exercise of this option." Stott called the tax both unfair and discriminatory, since it applies only to corporations which must operate through subsidiaries.

"If these corporations file separate returns," he explained, "the dividends paid one corporation to another of the group are subject to the burdensome tax on intercompany dividends. If they file a consolidated return, their income is subject to the discriminatory penalty surtax. In either case the income of this type of enterprise is subject to triple taxation; it is taxed twice at the corporate level and a third time in the shareholder's hands."

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THE ability of the Bell system to raise new capital will be seriously hampered if the limitation on allowable investments for employees' trusts becomes a part of the new tax code, Stott told the committee. Under the House version, tax exemption is denied to a trust if more than 5 per cent of its assets are invested in the securities of one issuer, other than the employer. "Unfortunately," Stott pointed out, "it appears that the term 'issuer' is defined to include all members of an affiliated group, with the result that, so far as the Bell system is concerned, the American Company and its subsidiaries, including such large companies as the New York Telephone Company, the Southern Bell Telephone & Telegraph Company, the Southwestern Bell Telephone Company, and the Pacific Telephone & Telegraph Company, each with more than \$1 billion of assets, would not be considered as separate issuers." Stott urged that the limitation at least be increased from 5 per cent to 15 per cent if the committee feels the restriction cannot be eliminated altogether. Otherwise, he warned, the restrictive provision will have a serious effect on the Bell system's construction program and on continued employment of its 700,000 employees.

Stott also requested the committee to make the basis for accrual of real property taxes elective rather than mandatory. As it now stands, the code requires, in the case of accrual basis taxpayers, that real property taxes which are related to a definite period shall be accrued ratably over that period. Noting that there are other accepted bases for accruing such taxes, Stott said to compel a shift from one basis to another "would in many cases result in serious distortion of taxable income and in financial hardship in the year of transition because a portion of real property taxes would not be an allowable deduction in that year."

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WITH regard to consolidated returns, Stott noted that the existing regulations have been made a part of the new code with one important exception. The House omitted the provision permitting the taxpayer to compute taxable income without eliminating certain types of intercompany gains and losses, where the Commissioner of Internal Revenue determines that it is appropriate to do so. The provision was omitted by the House on grounds that the commissioner has for many years permitted the filing of such returns where in his opinion no distortion of income or tax avoidance occurred. It was assumed by the House Ways and Means Committee that this practice would continue in proper cases. Stott said, however, that unless the omitted provision is made a part of the new code there may be some doubt as to the authority of the commissioner to use discretion in the treatment of such intercompany gains and losses.

Alabama Rate Decision Appealed

THE Southern Bell Telephone & Telegraph Company has decided to appeal to the courts the decision of the Alabama Public Service Commission denying the company a \$4,800,000 annual rate increase. A statement concerning the commission's rejection of the rate increase application was unusually critical of the company.

Commission President C. C. Owen said that evidence in the case was carefully considered and that the commission had concluded that the earnings of Southern Bell "are adequate and satisfactory under the rates now in force, which return 6 per cent on the company's net average annual investment in this state." Owen said that if the company's rates are raised

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at this time, the Alabama courts will have to accept the responsibility.

The statement further said that the company has been almost continuously "before this commission" since the end of World War II and "whether the company realizes it or not the people of Alabama are getting more than a little fed up with this continuous pressure for rate increases. It is time for Southern Bell, and other utilities, to take in its belt a notch just like private citizens must do during this phase of our nation's economy." Owen said the commission frowned on the more than \$200,000 which Southern Bell admittedly spent in preparing "this rate case which could well have been put to better use toward the service of the ratepayers in Alabama."

AT&T, General Telephone Hold Annual Meetings

CONTINUED growth of demands for telephone service, although at a more moderate rate, was reported at the annual stockholders' meetings held last month in New York city by the American Telephone and Telegraph Company and the General Telephone Corporation. At the AT&T meeting, President Cleo F. Craig said some moderation of the postwar pace of demand for new telephones was to be expected and that present demand is not as high as last year, although continuing at the rate of 1,400,000 telephones a year.

Active participation in the AT&T meeting by stockholders was again a feature, with some 1,400 shareholders, a record number, taking part in the proceedings. Election of a full board of nineteen directors and action on two stockholders' resolutions calling for the limitation of pensions and for the holding of regional stockholder meetings were on the agenda. The board was re-elected and the resolu-

tions defeated. President Craig answered the numerous questions put to management by the assembled stockholders by saying: "I think our business is in good shape to take whatever problems 1954 can offer." He also indicated that the current dividend rate of \$9 a capital share is safe.

FOR the General Telephone Corporation, 1953 was the best year in the system's history, President Donald C. Power told the annual meeting of the corporation's shareholders. General Telephone's total assets reached \$419,646,000—up 14 per cent over 1952. Operating revenues were \$127,946,000, not including some \$25,000,000 in revenues secured by the manufacturing and directory companies. Net income was \$13,952,000—up 59 per cent—and the net income applicable to common stock was \$13,432,000—up 73 per cent. Power said there was no telephone company in the country that exceeded this performance.

A separate booklet accompanying the annual report contains financial statistics describing much of interest in the development of the General Telephone system over the last ten years. During the 10-year period 1944-54, the system added more than a million telephones. Total assets have tripled, and operating revenues have risen from \$29,103,128 in 1944 to \$127,946,088 in 1954. The number of persons who own stock in General Telephone has also increased. At the end of 1953, the system had 36,000 holders of common and preferred and 30,000 of preferred stock of subsidiaries—a total of some 66,000 shareholders.

Gross additions to General Telephone's plant last year were in excess of \$67,000,000, Power reported. This year they are expected to be in the neighborhood of \$80,000,000—the largest construction program in the history of the system.



Financial News and Comment

By OWEN ELY

"Recession" Almost Over?

JUDGING from the weekly indices of business activity, production activity has now flattened out at around the level of 1951-52, but about 10 per cent below a year ago. Business is still much better than it was during the initial postwar period, and possibly is closer to a real "normal" now than it was a year ago. But to get a proper perspective on current business conditions it may be of interest to study the trend since 1929, the year when the severest depression in our history began.

The chart on page 616 is designed to eliminate changes in the purchasing power of money, which so frequently make it difficult to interpret business statistics. The yearly data presented in the chart are taken principally from the Economic Report of the President to Congress, published in January (1953 figures being preliminary). The seasonally adjusted FRB Index of Industrial Production for March, 1954, is indicated, also the ratio of total inventories to sales for February.

The gross national product is based on 1953 prices for the entire period 1929-53. Each worker in 1929 produced about \$3,590 worth of goods (measured in today's dollars) while in 1953 the amount was \$5,480, or an increase of 53 per cent. This was largely due to the increased use of electricity in industry, combined with

mass production methods and improved technology. As indicated in the chart, sales of electricity to industrial customers increased from 43 billion kilowatt-hours in 1929 to 180 billion kilowatt-hours in 1953 (estimated), an amount almost four times as large. While each worker in 1929 enjoyed the use of about 878 kilowatt-hours per annum to aid his production, the average in 1953 was 2,687 kilowatt-hours.

Thus, last year the average industrial employee had about three times as much power at his disposal as the 1929 worker; against this were retarding factors such as the shorter workweek, more union restrictions, strikes, featherbedding, etc.

MAJOR problems in any recession or depression are (1) excessive inventories in relation to sales, and (2) exces-

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sive debt in relation to gross national product. According to research results of the National Bureau of Economic Research (as summarized in the April issue of "Business in Brief," a quarterly bulletin of the Chase National Bank), increases in business inventories accounted for one-quarter of the total rise in production in the five periods of business expansion during 1918-38; and inventory liquidation accounted for about half the average decline in gross national product in periods of business contraction. In the major depression of 1929-30, inventory adjustment played only a moderate rôle as compared with debt readjustment; but in the recessions of 1920-21, 1923-24, 1936-38, and 1947-48, inventory changes were important.

As measured against past inventory adjustments, the present reduction in inventories has been very slight and has been accompanied by very little price cutting. This raises the question as to whether the recession must go deeper and longer, to accomplish the necessary correction. Unfortunately, we have no satisfactory figures prior to 1939 showing the relation of inventories to monthly sales, on a national basis and combining manufacturing and wholesale and retail trade figures. Following are the yearly averages for the monthly ratios of inventories to sales since 1939:

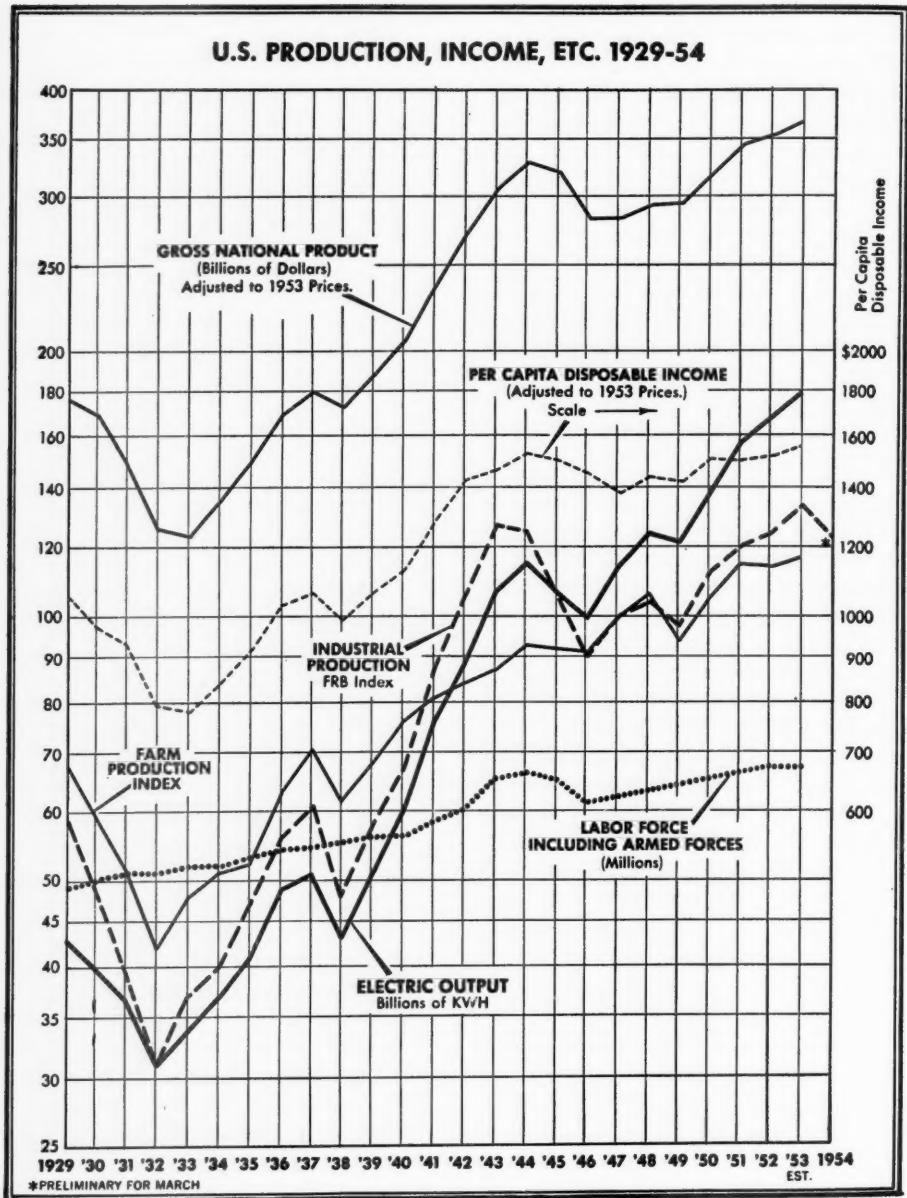
1939	177%
1940	172
1941	158
1942	166
1943	140
1944	133
1945	130
1946	133
1947	143
1948	147
1949	156
1950	140
1951	161
1952	164
1953	164 Prel.

The estimated ratio for February, 1954, was 1.72, which was slightly higher than the level prevailing in the last five months of 1953. Inventories have been reduced from \$82 billion last September to around \$80.3 billion in February, but the monthly sales figure has also dropped from \$50.4 billion last July to \$46.6 billion in February. If sales increase from here on, we may be able to reduce inventories moderately before basic production catches up with retail sales. Will this readjustment prove adequate? The result may depend largely on the business policy of major producers and it is difficult to give the answer at this time.

THE other major problem is debt reduction or readjustment. Statistics for all public and private debt are not available on an up-to-the-minute basis, but have to be pieced together from various sources. It is unfortunate that the Department of Commerce or the Federal Reserve Bank have not undertaken this project, but it is reported that an effort is now being made to "speed up" business statistics generally. However, some parts of the total, such as federal debt and consumer credit, are available on an up-to-date basis, and the general discussion of inflation and debt adjustment tends to center around these figures.

The September, 1953, issue of the "Survey of Current Business" included an article in which total net public and private debt was estimated at \$553 billion as of the end of 1952, an increase of \$31.5 billion over 1951. Presumably, the 1953 figure might show nearly an equal gain, and could hence be estimated at around \$580 billion. The comparable figure for 1929 was \$191 billion, and for 1933 \$169 billion (the depression low). The make-up of total net debt for 1929, 1933, and 1952, compared with the gross national product

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in those years, is shown in the accompanying table. (All figures are in billions of dollars, unadjusted for price changes.)

WITH respect to private debt, consumer credit now plays a somewhat similar rôle to that of brokers' loans in 1929. However, it does not seem to be as vulnerable, since loans are being steadily amortized and a decline in commodity prices would not trigger liquidation in the same manner that the decline in stock prices resulted in calling of brokers' loans in the panic days of 1929. Moreover, these loans are largely held by the finance companies, and the banks are not vulnerable as on the former occasion.

However, it must be noted that consumer credit at the end of 1953 had reached an all-time high of \$28.8 billion compared with only \$6.4 billion in 1929. Even after adjusting for the reduced value of the dollar and the increased number of workers, consumer credit is more than twice as large as in 1929. But a large section of the consuming public has reserves which could be used if necessary to pay off these debts, and repossession of installment goods has apparently not been large thus far, despite the elimination of much overtime work and a moderate rise in

unemployment. Obviously, however, it would be wise again to put the "brakes" on consumer credit as was done two or three years ago, as soon as the present recession is over.

WHILE 1953 data (if available) might make a less favorable showing than the 1952 figures, it is moderately reassuring to note that total private debt (corporate, farm, and individual) increased only 88 per cent during 1929-52 compared with the increase of 101 per cent in the gross national product. Farmers have been particularly conservative. Business bank loans are being whittled away week after week, although the net reduction from a year ago is not very great.

The principal danger, if it exists, appears to lie in the \$100 billion or more of federal paper which is short-term or payable on demand. This debt is, of course, largely underwritten by the Federal Reserve Board with its substantial powers to "print money." The danger is not so much of any default on the debt (similar to the bank failures of 1930-31) as of uncontrollable future inflation. This explains the great concern in Washington and throughout the country over balancing the budget and holding down the federal debt.



TOTAL DEBT VERSUS GROSS NATIONAL PRODUCT 1929-52

	1929	1933	Per Cent Decrease	1952	Per Cent Increase Over 1929
Federal Government (Net Debt)	\$ 17	\$ 24	41*	\$224	1,218%
States, Cities, etc.	13	17	31*	26	100
Total Public	\$ 30	\$ 41	37*	\$250	733%
Corporations	\$ 89	\$ 77	13	\$168	89%
Farmers	12	9	25	15	25
Others	60	42	30	120	100
Total Private	\$161	\$128	20	\$303	88%
Total Public and Private	\$191	\$169	12	\$553	190%
Gross National Product	\$176	\$123	30%	\$354	101%

*Increase.

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WHAT is the near-term outlook? The evidence is still very conflicting, and March—considered the decisive month—was rather disappointing. However, *Newsweek* points to eight “signs” that the readjustment is almost over: (1) Housing starts in February-March gained 33 per cent over last year and were the largest in four years. (2) Construction contracts awarded in March were 13 per cent over last year and a record for the month; industry plans to spend \$28 billion for plant and equipment this year, the same amount as last year. (3) Record first-quarter earnings were reported by some large corporations (however, decreases have exceeded gains, in number). (4) Personal income is higher than a year ago. (5) Sales of new and used cars now “exceed all expectations,” with April business holding at about the 1953 level (though output earlier had been running some 8 per cent below 1953, or at about 67 per cent of capacity). (6) Decline in gross national product, which began in the second quarter of last year, seems to be leveling off (the first-quarter decline from the December quarter was only about one per cent). (7) Retail sales boomed belatedly at Easter, bringing the year’s total to date within 2 per cent of last year—*Newsweek* thinks the difference may be wiped out by the end of April. (8) About 6 per cent more electricity was sold in the first quarter than last year.

NEWSEEEK admits that there are soft spots, such as steel operations, synthetic textiles, oil overproduction, etc., but concludes as follows:

The President’s Council of Economic Advisers has insisted all along that the slump has been caused mainly by a top-heavy inventory situation. With sales picking up, disposable income remaining high, and the employment situation

apparently steady, remaining excess inventories apparently will be worked off soon. Then, if the council is right, a substantial business upturn should get under way.

FPC Expedites Rate Decisions

SOMETIME ago (PUBLIC UTILITIES FORTNIGHTLY, January 21, 1954, issue, page 107) we called attention to the huge backlog of rate cases awaiting decision by the Federal Power Commission and discussed the possibility of speeding up the regulatory process. The commission recently announced that it had disposed of 26 natural gas rate cases involving over \$115,000,000 in proposed wholesale increases during the 9-month period ended March 31st. This was more than double the combined total, both in dollars and in number of cases, which had been decided during the two preceding fiscal years.

The commission still had pending 38 rate cases involving over \$103,000,000 in annual increases at the end of March. Nine months earlier there were 39 cases pending, involving over \$162,000,000 in proposed increases. Another \$56,000,000, representing 25 cases, had been suspended by the FPC up through March 31st—making a total of \$219,000,000 before the commission during this 9-month period.

Out of the total of \$115,000,000 in proposed increases disposed of during the first nine months of the current fiscal year, the commission disallowed \$31,000,000 or 27 per cent. Of the remaining amount \$82,000,000 was allowed and \$2,000,000 was withdrawn as a result of settlements in related cases.

CHAIRMAN Kuykendall said that of the 26 settlements during the first nine months of this fiscal year, 21 were reached through the conference procedure, obviat-

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ing the necessity of long-drawn-out formal hearings. He pointed out that prompt action on these cases has almost invariably benefited the consumers, since the settlements usually result in substantial reductions from the rate levels proposed by the companies—proposed rates which might otherwise be collected, subject to refund, over long periods of time. In the fiscal year 1953, the conference procedure accounted for nine settlements, and in fiscal 1952 for six.

Importance of the Regulatory Factor in Evaluating Utility Stocks

MARVIN CHANDLER, well-known utility analyst and rate expert of Reis & Chandler, New York city, in a recent address before the Oklahoma Utilities Association, discussed in detail the question "How Public Utilities Look to the Investor."

"In the last analysis," he remarked, "the investor in most utility securities is buying future earnings and that is all. There may be an occasional exception, and in the gas fields these are more frequent, for there the stockholder may be buying an interest in gas in the ground, which either is some time away from being converted into earnings or else is going to be 'spun off'; that is, incorporated into a separate company to be distributed to the stockholders. But by and large, whether the utility stock purchaser's objective is primarily income, primarily appreciation, or some balance between the two, the amount and the soundness of the future earnings will measure the success or failure of his purchase."

In determining the quality of earnings, he pointed out that capital structure is important and that the debt ratio should vary with different segments of the utility in-

dustry, depending on the degree of risk. Thus the telephone industry should have less debt than the electric utilities. Other factors are the size of the enterprise, the "cleanliness" of the balance sheet (the question of intangibles, reserves, etc.), and the degree in which earnings fluctuate.

It is also necessary to study the utilities' customers—the proportion of volatile industrial business in relation to stable residential sales, etc.

THE regulatory atmosphere in which the company operates is vital in many cases. Referring to methods of regulation, Mr. Chandler spoke as follows:

Certainly what we as analysts are interested in is the result produced. Our primary interest is not whether this result is achieved through a liberal rate base and a stringent rate of return; its converse, a bare bones rate base and a generous rate of return; or some compromise between these two extremes. The most logical compromise, of course, would be a fair rate of return and a fair rate base, which is what the law provides, but unfortunately opinions differ widely as to fairness. . . .

However, if the books of account are used as the foundation of the rate base, we would not necessarily write off that commission as unfair. If it recognized the historical cost of properties prudently acquired, even if in excess of the original cost when first devoted to the public service, it would certainly be showing a minimum vestige of fairness. We would expect it to take a realistic approach to the working capital question, recognizing that irrespective of regulatory theory, a prudently managed utility, which in a period of rapid and sizable construction does not spend its federal income tax accruals but main-

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tains a good-sized cash position, should not be penalized.

We would expect it to include in the rate base work in progress of construction unless the interest being capitalized provided a full return on the entire balance in this account. In the current construction era, we would expect some recognition of the continuing impact of new, higher-cost plant, through the medium of an end-of-period rate base or an allowance for construction commitments which doubtless will be in service by the time the commission's order is issued and new rates become effective.

MR. CHANDLER made a careful analysis of mechanical computations of "fair return" based on cost of capital and particularly on the cost of common stock money, pointing out the serious drawbacks and fallacies involved. He also discussed in some detail the question of regu-

latory lag and how to compensate for it, attrition or slippage in earnings, economic depreciation due to inflation, etc.

North American Meeting

THE 64-year-old North American Company, which once had a portfolio valued at some \$2 billion, recently held its last annual meeting for stockholders. While the company was once cited by Franklin D. Roosevelt as the utility system which had "nothing to fear" from the Holding Company Act, nevertheless, the fact that its holdings were widely scattered made it somewhat vulnerable to the act. The company has followed a policy of gradual liquidation through distribution of holdings to stockholders, and the only remaining utility holding is Union Electric of Missouri, a small part of which has already been distributed. The balance will be given to stockholders through a share-for-share exchange.



DATA ON ELECTRIC UTILITY STOCKS

1953 Rev. (Mill.)		4/21/54 Price About	Div. Rate	Cur- rent Yield	Share Cvr. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- Out	Moody Bond Rating
\$223	S American Gas & Elec.	36	\$1.64#	4.6%	\$2.49**	6%	Dec.	14.5	66%	—
31	O Arizona Public Service ...	19	.90	4.7	1.31	21	Feb.	14.5	69	—
8	O Arkansas Mo. Power	20	1.12	5.6	1.63	21	Sept.	12.3	69	—
25	S Atlantic City Elec.	33	1.50b	4.5	1.81	15	Feb.	18.2	83	Aa
5	O Bangor Hydro-Elec.	30	1.80	6.0	2.06	29	Dec.	14.6	87	—
4	O Black Hills P. & L.	22	1.28	5.8	2.09	12	Jan.	10.5	61	—
82	S Boston Edison	50	2.80	5.6	2.96	D1	Dec.	16.9	95	Aaa
18	A California Elec. Power	11	.60	5.5	.88	5	Dec.	12.5	68	A
14	O Calif. Oregon Pr.	28	1.60	5.7	1.70	1	Nov.	16.5	94	A
52	S Carolina P. & L.	44	2.00#	4.5	3.03	3	Feb.	14.5	66	A
21	S Central Hudson G. & E. ...	14	.70	5.0	.96	26	Dec.	14.6	73	—
15	O Central Ill. E. & G.	29	1.60	5.5	2.07	D11	Dec.	14.1	77	A
29	S Central Ill. Light	43	2.20	5.1	2.86	8	Feb.	15.0	77	Aa
40	S Central Ill. P. S.	21	1.20	5.7	1.44	7	Dec.	14.6	83	A
9	O Cent. Louisiana Elec.	24	1.00#	4.2	1.58	8	Dec.	15.2	63	Baa
27	O Central Maine Power	20	1.20	6.0	1.55	9	Feb.	12.9	77	A
96	S Central & South West	25	1.16	4.6	1.72	15	Dec.	14.5	67	—
9	O Central Vermont P. S.	15	.84	5.6	.85	D5	Feb.	17.6	99	A
89	S Cincinnati G. & E.	23	1.00#	4.3	1.56	10	Dec.	14.7	64	Aaa
5	O Citizens Utilities	17	.40a	5.4a	.98	13	Sept.	17.3	41	Ba
91	S Cleveland Elec. Illum.	59	2.60	4.4	4.07	18	Dec.	14.5	64	Aaa
3	O Colorado Cent. Power	22	1.20	5.5	1.52	13	Dec.	14.5	79	—
32	S Columbus & S. O. E.	28	1.60	5.7	2.15	9	Dec.	13.0	74	A
329	S Commonwealth Edison	41	1.80	4.4	2.38	10	Dec.	17.2	76	Aaa
10	A Community Pub. Service ..	22	1.00#	4.5	1.60	8	Dec.	13.8	63	—
1	O Concord Electric	36	2.40	6.7	1.89	D25	(c)	19.0	127	—

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1953 Rev. (Mill.)	(Continued)	4/21/54 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- out	Moody Bond Rating
55	O Connecticut L. & P.	17	.88†	5.2	1.12	18	Feb.	15.2	79	Aaa
18	O Connecticut Power	42	2.25	5.4	2.41	2	Dec.	17.4	93	Aaa
454	S Consol. Edison	44	2.40	5.5	2.94	12	Dec.	15.0	82	Aa
98	S Consol. Gas of Balt.	28½	1.40	4.9	1.74**	D4	Dec.	16.4	80	Aaa
158	S Consumers Power	43	2.20	5.1	2.95	29	Feb.	14.6	75	Aa
57	S Dayton P. & L.	38	2.00	5.3	2.63	D8	Dec.	14.4	76	Aa
28	S Delaware P. & L.	30	1.40	4.7	1.87	18	Feb.	16.0	75	Aa
192	S Detroit Edison	31	1.60	5.2	1.93	13	Feb.	16.1	83	Aa
107	A Duke Power	45	1.85	4.1	3.11	30	Dec.	14.5	59	Aaa
82	S Duquesne Light	30	1.60	5.3	2.22	8	Dec.	13.5	72	Aaa
27	O Eastern Util. Assoc.	32	2.00	6.3	2.42	D3	Feb.	13.2	83	—
2	O Edison Sault Elec.	10	.50	5.0	.82	41	Dec.	12.2	61	—
9	O El Paso Electric	29	1.60	5.5	2.20	12	Feb.	13.2	73	A
10	S Empire Dist. Elec.	24	1.40	5.8	2.12	7	Dec.	11.3	66	Baa
4	O Fitchburg G. & E.	47	3.00	6.4	2.80	D7	Dec.	16.8	107	—
32	S Florida Power Corp.	33	1.50	4.5	1.89	26	Dec.	17.5	80	A
70	S Florida P. & L.	43	1.60	3.7	3.07	8	Dec.	14.0	52	A
156	S General Pub. Util.	31	1.70	5.5	2.30	13	Dec.	13.5	74	—
5	O Green Mt. Power	25	1.30	5.2	1.76	7	Dec.	14.2	74	Ba
43	S Gulf States Util.	29	1.20	4.1	1.89	24	Feb.	15.3	63	Aa
21	A Hartford E. L.	55	2.75	5.0	3.29	32	Dec.	16.7	84	Aaa
5	O Haverhill Elec.	42	2.50†	6.0	2.99	10	Dec.	14.0	84	—
53	S Houston L. & P.	35	1.20	3.4	1.92	16	Feb.	18.2	63	Aa
7	O Housatonic P. S.	24	1.40	5.8	1.47	11	Dec.	16.3	95	—
22	S Idaho Power	51	2.20	4.3	3.35	22	Dec.	15.2	66	Aa
62	S Illinois Power	44	2.20	5.0	2.78	5	Feb.	15.8	79	A
35	S Indianapolis P. & L.	45	2.20	4.9	3.11	D1	Sept.	14.5	71	A
17	S Interstate Power	11	.64	5.8	.91	2	Dec.	12.1	70	Baa
23	O Iowa Elec. L. & P.	21	1.20	5.7	1.64	13	Feb.	12.8	73	—
28	S Iowa-Ill. G. & E.	31	1.80	5.8	2.25	D4	Feb.	13.8	80	Aa
29	S Iowa Power & Light	28	1.40	5.0	1.94	11	Dec.	14.4	72	Aa
25	O Iowa Pub. Service	26	1.40	5.4	1.86	16	Jan.	14.0	75	A
11	O Iowa Southern Util.	21	1.20	5.7	1.57	15	Feb.	13.4	76	Baa
46	S Kansas City P. & L.	34	1.80	5.3	2.17	7	Feb.	15.7	83	Aaa
22	O Kansas Gas & Elec.	43	2.00	4.7	3.47	18	Feb.	12.4	58	A
34	S Kansas Pr. & Lt.	19	1.12	5.9	1.32	D7	Dec.	14.4	85	Aa
31	O Kentucky Utilities	21	1.12	5.3	1.69	15	Dec.	12.4	66	A
6	O Lake Superior D. P.	35	2.00	5.7	2.80	9	Dec.	12.5	71	A
5	O Lawrence Electric	30	1.40†	4.7	1.87	18	Dec.	16.0	75	Aa
67	S Long Island Lighting	19	1.00	5.3	1.29**	1	Mar.	14.7	78	A
39	S Louisville G. & E.	45	1.80	4.0	3.28	14	Dec.	13.7	55	Aa
7	O Lowell Elec. Lt.	58	3.50†	6.0	3.74	3	Dec.	15.5	94	—
8	O Lynn G. & E.	29	1.60	5.5	2.14	14	Dec.	13.6	75	Aa
7	O Madison G. & E.	37	1.60	4.3	3.13	16	Dec.	11.8	51	Aa
3	A Maine Public Service	24	1.40	5.8	1.71	19	Feb.	14.0	82	Baa
5	O Michigan G. & E.	35	1.35#	6.9a	2.83	2	Dec.	12.4	48	Baa
127	S Middle South Util.	28	1.40	5.0	2.00	7	Feb.	14.0	70	—
20	S Minnesota P. & L.	23	1.20	5.2	1.97	17	Mar.	11.7	61	A
2	O Miss. Valley P. S.	24	1.40	5.8	2.17	15	Mar.	11.1	65	—
9	A Missouri P. S.	34	1.80	5.3	2.37	13	Dec.	14.3	76	—
5	O Missouri Utilities	19	1.00	5.3	1.63	4	Dec.	11.7	61	—
31	S Montana Power	36	1.60	4.4	2.61	D5	Jan.	13.8	61	Aa
16	A Mountain States Pr.	18	.84	4.7	1.35	18	Dec.	13.3	62	Baa
117	S New England Elec.	14	.90	6.4	1.22**	D2	Sept.	11.5	74	Baa
38	O New England G. & E.	16	1.00	6.3	1.38**	13	Feb.	11.6	72	Baa
41	O New Orleans P. S.	43	2.25	5.2	2.96	3	Feb.	14.5	76	A
2	O Newport Electric	37	2.00	5.4	2.93	D2	Feb.	12.6	68	—
68	S N. Y. State E. & G.	36	1.90	5.3	2.64	21	Feb.	13.6	72	A
204	S Niagara Mohawk Power ..	29	1.60	5.5	2.03	16	Dec.	14.3	79	Aa
63	O Northern Ind. P. S.	28	1.60	5.7	2.22	6	Feb.	12.6	72	A
110	S Northern States Pr.	15	.80	5.3	1.10	8	Dec.	13.6	73	Aa
8	O Northwestern P. S.	15	.90	6.0	1.26	D10	Dec.	11.9	71	A
109	S Ohio Edison	41	2.20	5.4	2.90	15	Feb.	14.1	76	Aa
35	S Oklahoma G. & E.	30	1.50	5.0	1.86	—	Feb.	16.1	81	A
14	O Otter Tail Power	26	1.50	5.8	2.22	6	Feb.	11.7	68	—

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1953 Rev. (Mill.)	(Continued)	4/21/54 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay- out	Moody Bond Rating
364	S Pacific G. & E.	41	2.20	5.4	3.12**	24	Dec.	13.1	71	Aa
22	O Pacific P. & L.	21	1.20	5.7	1.66	D10	Feb.	12.7	72	Baa
106	S Penn Power & Light	41	2.40	5.9	3.09	26	Feb.	13.3	78	A
8	A Penn. Water & Power	38	2.00	5.3	2.13	D8	Dec.	17.8	94	A
187	S Philadelphia Elec.	37	1.80	4.9	2.36	7	Dec.	15.7	76	Aaa
27	O Portland Gen. Elec.	19	1.00	5.3	1.29	4	Feb.	14.7	78	Baa
50	S Potomac Elec. Power	19	1.00	5.3	1.15	—	Feb.	16.5	87	Aa
56	S Pub. Serv. of Colo.	34	1.60	4.7	2.34	6	Dec.	14.5	68	Aa
230	S Pub. Serv. E. & G.	27	1.60	5.9	1.80	15	Dec.	15.0	89	Aa
59	S Public Serv. of Ind.	39	2.00	5.1	2.34	8	Feb.	16.7	85	Aa
21	O Public Serv. of N. H. ...	31	1.80	5.8	1.82	D12	Mar.	17.0	99	A
8	O Public Serv. of N. M. ...	12	.68	5.7	.81	14	Sept.	14.8	84	—
20	O Puget Sound P. & L.	28	1.64	5.9	1.88	25	Feb.	14.9	87	Baa
46	S Rochester G. & E.	41	2.24	5.5	3.30	23	Dec.	12.4	68	A
12	O Rockland L. & P.	14	.60	4.3	.68	D4	Dec.	20.6	88	A
7	S St. Joseph L. & P.	22	1.20	5.5	1.73	15	Dec.	12.7	69	A
36	S San Diego G. & E.	15	.80	5.3	1.22	9	Feb.	12.3	66	Aa
7	O Sierra Pacific Pr.	34	2.00	5.9	2.56	D3	Feb.	13.3	78	Baa
140	S So. Calif. Edison	41	2.00	4.9	2.66	D10	Dec.	15.4	75	Aa
29	S So. Carolina E. & G.	16½	.80	4.8	1.10	45	Feb.	15.0	73	Baa
5	O Southern Colo. Pr.	13	.70	5.4	1.22	31	Dec.	10.7	57	—
180	S Southern Company	17	.80	4.7	1.24	8	Feb.	13.7	65	—
13	S So. Indiana G. & E.	26	1.50	5.8	2.21	18	Jan.	11.8	70	Aa
1	O Southern Utah Power	15½	1.00	6.5	1.18	D25	Feb.	13.1	85	—
3	O Southwestern E. S.	18	.96	5.3	1.51	9	Feb.	11.9	64	—
31	O Southwestern P. S.	26	1.32	5.1	1.63	20	Feb.	16.0	81	A
17	A Tampa Electric	56	2.80	5.0	3.57	6	Feb.	15.7	78	Aa
109	S Texas Utilities	51	2.08	4.1	3.40	13	Feb.	15.0	61	Aa
34	S Toledo Edison	13	.70	5.4	.93	—	Dec.	14.0	75	A
10	O Tucson G. E. L. & P.	19	.92	4.8	1.40	15	Dec.	13.6	66	—
103	S Union Elec. of Mo.	24	1.20	5.0	1.36	11	Dec.	17.6	88	Aa
27	O United Illuminating	47	2.40†	5.1	2.89	6	Dec.	16.3	83	—
2	O Upper Peninsula Pr.	20	1.20	6.0	1.49	7	Dec.	13.4	81	Baa
30	S Utah Power & Light	37	2.00	5.4	2.65	2	Feb.	14.0	75	A
84	S Virginia E. & P.	29	1.40	4.8	1.82	13	Feb.	15.9	77	Aa
22	S Washington Water Pr.	30	1.60	5.3	1.82	10	Mar.	16.5	88	A
115	S West Penn Elec.	39	2.20	5.6	3.45	7	Feb.	11.3	64	—
62	O West Penn Power	45	2.10†	4.7	2.58	5	Dec.	17.4	81	Aa
9	O Western Lt. & Tel.	28	1.60	5.7	2.57	26	Dec.	10.9	62	A
22	O Western Mass. Cos.	34	2.00	5.8	2.61	19	Feb.	13.0	77	—
84	S Wisconsin Elec. Pr.	31	1.50	4.8	2.01	4	Dec.	15.4	75	Aa
32	O Wisconsin P. & L.	24	1.20	5.0	1.73	21	Dec.	13.9	69	A
30	S Wisconsin Pub. Ser.	20	1.10	5.5	1.54	13	Dec.	13.0	71	A
Averages				5.3%				14.3	75%	
Foreign Companies††										
\$187	S American & Foreign Pr. ..	10½	\$.60	5.7%	\$2.36	22%	Sept.	4.4	25%	—
170	A Brazilian Trac. L. & P.	8	.03b	—	2.98	20	(c)	2.7	—	—
56	A British Columbia Pr.	21	1.00	4.8	1.47	15	Dec.	14.3	68	—
15	A Gatineau Power	24	1.20	5.0	1.77	10	Dec.	13.6	68	Baa
26	O Mexican L. & P.	7	—	—	—	—	—	—	—	—
9	A Quebec Power	23	1.20	5.2	1.57	23	Dec.	14.6	76	Baa
42	A Shawinigan Water & Pr. ..	40	1.45	3.6	2.26	17	Dec.	17.7	64	Baa

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. NC—No comparable figures available. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the net income available for common stock. Tax savings resulting from accelerated amortization of defense facilities are excluded (when separately reported). **Based on average number of shares. a—Also regular annual 3 per cent stock dividend, which is included in the yield. b—Also 5 per cent stock dividend. c—Calendar year 1952. #—Also occasional stock dividends. †Estimated (rate irregular or includes extras). ††With exception of American & Foreign Power, these stocks are also listed in Canada, and the Canadian prices are here used. (Curb prices are affected by exchange rates, etc.)



What Others Think

EEI President Sees Power Industry As Challenge to Engineers

THIS year the world will celebrate the seventy-fifth anniversary of Edison's incandescent lamp — an invention that started a chain reaction in the harnessing of electric energy, which has had so profound an impact on the social and economic life of the world. As Walter H. Sammis, president of the Edison Electric Institute, noted in his address to the American Power Conference in Chicago last month, the influence of this development is so apparent and its history so marked by the integration of so many technical achievements, that those who have spent their lives in the business are prone to take for granted the potentialities of the future. There is a tendency on their part to overlook the thoughts in the minds of those on the threshold of their careers who may be asking the questions: Is there any real future in a 75-year-old industry? Have all the engineering problems been worked out? Has all hope of new discoveries and further developments ended? Has the job settled down to a routine business?

"Basically, the electric light and power industry is an engineering operation and because of its technical nature always will be," Sammis told the conference. "Its financing, sales activities, public relations,

accounting, and legal phases of the business are all built upon its engineering characteristics. . . . Its future sound growth will likewise depend on the vision, the bold concepts, the unremitting efforts, the ability to achieve, and the native leadership of its engineers. To stay in the vanguard of progress it must always continue to have engineering leadership of top quality."

THE operation of the present power supply systems of America, together with the many new problems that are arising and will surely continue to arise, calls for a goodly number of engineer-trained men of creative genius and the talent for getting things done, Sammis said. There are, for example, many questions pertaining to bulk power supply and source of energy. Sammis explained that the per capita rate of consumption of the fossil fuels has been increasing at an accelerating rate, and noted that the same thing is happening in other parts of the world which will affect our own future fuel supply. These same fossil fuels are being called upon as sources for other products and their use for these purposes is growing and may some day reach large proportions. Engineering by equipment manufacturers and by the utility industry dur-

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ing the past seventy-five years has already made a tremendous contribution to the conservation of fossil fuels, Sammis declared. He warned that the supply of fossil fuels is not unlimited and, therefore, the engineering profession cannot neglect to harness other sources of energy as fast as this can be accomplished economically so that the public can enjoy the further benefits of low-priced electric service. Sammis emphasized:

... we cannot afford to be satisfied with our present achievements. Always we must be on the lookout for new energy sources that can economically be put to work. It is this consideration that justifies us in spending money on research and development. The feasibility of harnessing atomic power on an economical basis, able to stand on its own feet, is actively being studied, not only in America but in other countries.

THERE are other types of engineering tasks that must be capably handled in any power company, Sammis pointed out. He noted that higher transmission voltages for more economical power transmission are entering a new era. Lines to operate at 330,000 volts are now being constructed in this country. The vast interconnected power systems of today call for an advancing art of metering, telemetering, and system communication. Distribution design and practices are being modified in an endeavor to keep ahead of the requirements for serving the increasing demands of existing and new customers. Progress in the application of electricity to industry and agriculture, in the lighting and air conditioning of commercial establishments, and in the wiring of customers' premises, has increased the need for men with engineering education and training in the sales field.

"Then every so often a job comes along

that puts to the test all the ingenuity and skills of management and of its engineers, such as occurred in 1952 in the creation of the Ohio Valley Electric Corporation to supply 1,800,000 kilowatts of electricity to the new atomic power plant of the Atomic Energy Commission being built in Pike county, Ohio," Sammis stated.

THE basic task of a power company is truly to serve people and serving them includes the job of always earning sufficient to be able to attract new capital at reasonable cost as needed for plant expansion. The engineer who becomes a part of a power company, said Sammis, must have the breadth and capacity and vision to make his engineering best accomplish the broad purpose. He continued:

... It is a vocation for men with engineering talent who wish to make themselves truly useful to society. There is need for men with a liking for design, for men who turn naturally toward special engineering fields, for men who like to handle operations and deal with men, for engineers with a talent for selling, for those who are capable of working with the public and with public officials, and for those with a liking and natural ability in administration. A large percentage of the presidents of utility companies are engineering graduates and a man with broad engineering and operating experience is in demand for management positions. History shows that in the electric utility industry, perhaps more than in other industries, the leaders of today have worked their way up their company ladders.

The supply of electric power has become so essential to so many activities of life that any man qualified by training to perform this type of work has a solid foundation for useful and satisfying em-

WHAT OTHERS THINK

ployment, Sammis declared. The fact that there are only partly charted and still uncharted frontiers, that there are major problems ahead, and that the demands for electric energy continue to grow, promise the ambitious and the energetic man that he will be kept busy trying to keep up with his responsibilities if he attaches impor-

tance to the opportunities that confront him in his work. "To exploit opportunities has never been an easy job," Sammis stated. "To raise the standards of living of people and to contribute to the well-being of the many is always difficult." If it were otherwise, he concluded, men with lesser qualifications could do it.

Crisis for Urban Transit

URBAN transit in upstate New York faces a bleak future unless strong measures are soon forthcoming from responsible state and local officials. It has been reported that dozens of bus companies in New York state, frustrated in their attempts to get tax relief at state levels, are continuing service only by the narrowest of margins. The bulk of their 1.1 billion annual haul of passengers faces the ultimate prospect of walking, shifting to automobiles, or selling municipalities on subsidizing or taking over the companies.

A bill which would have exempted the bus companies from the \$2,400,000 in the form of a 2 per cent tax on gross receipts paid by them annually to the state was allowed to die in this year's session of the state legislature, despite a report of a special committee, appointed by Governor Dewey in 1953, urging such exemption. Governor Dewey has vetoed five previous bills in the last eight years, although both houses of the legislature passed them overwhelmingly. The governor has argued in the past that, while the companies deserve consideration, a tax exemption measure would upset the state budget.

Meanwhile, the urgency of some relief for the companies is daily becoming more apparent. Out of some 235 bus companies in the state, 16 went out of business in 1952 and 26 in 1953. Twenty-one bus lines in upstate New York ended 1952 in the

red; three others made less than \$2,500. Two cities, Oswego and Ogdensburg, have lost their service entirely. The huge Schenectady company went into receivership, lingered awhile, and then went out of business. Four other operators are now attempting to give roughly the same service.

TRANSIT operators in general feel that to get a fair return on their investment and remain in healthy condition, they should pay out in operating costs no more than 92 cents for every dollar taken in. In 1952, among urban transit companies, only Syracuse and a few New York city operations were able to keep their costs that low. By comparison, Buffalo paid out in the same year 95.6 cents for every dollar taken in; Rochester, 97.4 cents; and Utica, 98.5. Among intercity companies, the record was slightly better.

In addition to exemption from the 2 per cent tax on their gross receipts, some transit companies have made other suggestions designed to improve their position. The Rochester Transit Corporation recently proposed that bus lines which cannot pay their own way be subsidized by those who want to keep them operating. The subsidy would be paid by local government, real estate interests, retail groups, or industrial employers. Such an agreement would require the payment of

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a subsidy only large enough to make it possible for "losing lines" to break even and no profit would be involved.

In submitting its proposal to the public service commission, the company stated:

There is no justification for expecting the transit system to bear the brunt of losing routes, even though the loss is spread over the rest of the system, because this process raises the general fare level and discourages riding on all parts of the system. Where the general public demands continuance of unprofitable service, such service should be paid for by those making the demands. No reason appears why this could not be accomplished by a businesslike contract between the transit company and the city, the political group, the local section, or whatever entity is involved.

The company pointed out that no great innovation was involved in this suggestion, since many transit companies operate under contracts with schools, stores, merchants' associations, hotels, real estate developments, etc.

SUCH a plan as suggested by the Rochester company might well help solve transit problems in certain localities. It is

clear, however, from transit statistics in New York state as a whole, that any permanent remedial measures must be considered on the state level if the bus and the streetcar are not to disappear entirely as a means of urban transportation. Along these lines, the governor of Wisconsin has set up a 5-man commission to study the state's city transit problems, and a general hearing was scheduled to be held May 7th for hard-pressed transportation systems.

Wisconsin's Governor Kohler feels that if something isn't done to relieve these systems, some cities may find themselves in the same situation as cities in upper New York—without adequate mass transportation. A recent report by the chief of the public service commission's transportation department showed 14 out of 32 of the state's transit systems operating at a loss in 1953. These companies serve urban communities with a total population of nearly 1,800,000. Green Bay showed the largest loss (\$33,743), while Janesville, which has municipal ownership, showed a net loss of nearly \$17,000.

The report stated that while no Wisconsin cities are planning to abandon mass transportation at the present, there are numerous small companies that will need help if they are to survive.

Notes on Recent Publications

A PRACTICAL guide to lightning protection, planned to give the technical essentials of the subject in as simple and understandable form as possible, has just been published by the McGraw-Hill Book Company under the title, *Lightning Protection for Electric Systems*. The author is Edward Beck, manager, lightning arrester section, Westinghouse Electric Corporation.

The book covers the protection of electric systems and equipment used in transmission and distribution installations, railways, industrial plants, mines, etc. It shows

the nature of lightning and its effects, how to select and apply arresters, and what conditions to look for if trouble is to be avoided. Mr. Beck managed to use as little mathematics as possible, while still providing sufficient technical information to facilitate good protective measures. Each subject discussion ends with practical solutions or recommendations.

LIGHTNING PROTECTION FOR ELECTRIC SYSTEMS, by Edward Beck. McGraw-Hill Book Company, Inc. New York, New York. 1954. Price, \$6.50.

The March of Events



FPC Suspends Gas Rate Increase

THE Federal Power Commission recently announced suspension of about \$9,500,000 of a proposed \$12,589,000 wholesale natural gas rate increase filed by the Cities Service Gas Company, Oklahoma City.

The FPC said the \$3,000,000 the company will be permitted to collect will be applicable to sales of gas for resale for

industrial use only. Such resales are not subject to suspension under the Natural Gas Act.

The proposed increase, which would have affected about 50 wholesale customers in Texas, Oklahoma, Kansas, Nebraska, and Missouri, was filed by Cities Service on March 22nd. The increase, other than for industrial service, would have become effective April 23rd, if the FPC had not suspended it. The industrial increase became effective that day.

Alabama

Gas Rate Hearing Ordered

THE state public service commission last month suspended a proposed rate increase filed by the Alabama Gas Corporation to bring in \$900,000 additional yearly revenues and set a hearing on it for May 19th.

The corporation filed a new rate schedule for 46 Alabama communities.

The commission said it appeared that the proposed schedule would "effect increases in rates to a large number of the Alabama Gas Corporation's customers. It is the opinion of the commission that the public interest requires an investigation."

The suspension will be in effect until July 1st, unless the commission decides the case before then.

Indiana

Water Rate Increase Appealed

ARATE increase of \$2,170,000, granted to the Indianapolis Water Company by the state public service commission, was

appealed last month to the combined Marion county superior courts by the city of Indianapolis on the grounds that it is "unreasonable, unlawful, arbitrary, and capricious."

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Naming as defendants the state commission, its members, and the water company, the suit asks that the rate order be set aside, and that the company be required to refund money collected under the rate increase in effect since April 1st to consumers.

City Special Counsel George R. Jeffrey,

Sr., expressed hope that the case would come to trial in June, prior to the annual superior court recess during July and August.

The suit charges that a \$36,500,000 valuation placed by the commission on the company's property "exceeds the fair value . . . by more than \$5,000,000."

Kentucky

Co-op Granted Right to Seek REA Loan

THE state public service commission recently authorized the East Kentucky Rural Electric Co-operative Corporation to borrow \$14,770,000 from the Rural Electrification Administration to finance construction. The order said the amount would be used for East Kentucky projects already approved by the commission. East Kentucky has under construction at Ford in Clark county two 20,000-kilowatt generators, and has won commission approval to increase the plant's capacity to 60,000 kilowatts.

The co-op, after a lengthy fight, won the right to build a 1,395-mile power network to distribute the power. These facilities will be integrated with those of Kentucky Utilities Company to generate and distribute power to customers of both under an "armistice" signed last March.

Commission Orders Refund

THE Union Light, Heat & Power Company was ordered last month to refund about \$2,250,000 in gas and electric charges to its northern Kentucky customers. The refund, ordered by the state public service commission, means the utility's 50,000 customers will receive a refund averaging more than \$40 each. Further refunds may be in the offing if the Federal Power Commission, in the case before it, reduces wholesale rates the company pays for the gas and electricity it buys.

In ordering the refunds, the commission gave the utility company permission to increase its gas and electric rates \$796,000 a year. The commission said the new rates will enable Union to earn a 6.25 per cent return on its investment in gas distribution facilities and 6.19 per cent on its electric operations.

Nebraska

Dispute Moves into Court

A POWER plant controversy involving the Nebraska Public Power System and the Consumers Public Power District moved into the courts when the Platte county district court in Columbus was asked recently for a declaratory judgment to determine:

Whether NPPS could legally advertise and put up for sale without budget board approval bonds to finance a new steam plant near Beatrice and whether Consumers can build its own steam plant without violating its cost-of-service contract with NPPS.

The action was filed by the Custer Pub-

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lic Power District in conjunction with the Elkhorn Rural Public Power District, Franklin County Electric Membership

Corporation, Twin Valley Public Power District, and the Wayne County Rural Public Power District.

New Jersey

Utility Law Study Extended

GOVERNOR Meyner recently signed into New Jersey law a bill providing a year's extension for completion of a study of revision of the state's public utility statutes.

The study is being conducted by a state

legislative commission headed by former Senator Samuel L. Bodine of Hunterdon county. The commission had been directed to submit this year its proposals covering rate making, safety regulations, and other features of Title 48 of the New Jersey revised statutes.

West Virginia

Gas Rate Increase Rejected

THE West Virginia Public Service Commission last month rejected an application by the Cumberland & Allegheny Gas Company to increase its rates for 16,400 customers in 10 West Virginia counties.

Amounting to \$632,000 a year in additional revenue, the proposed rate boost would have applied to gas users in the counties of Barbour, Braxton, Grant, Harrison, Lewis, Mineral, Preston, Randolph, Tucker, and Upshur.

The commission dismissed the request on motion of the Inter-Community League of Central Eastern West Virginia, which protested the proposed hike at a meeting March 18th.

The commission's order said the gas company's books do not segregate operating expenses between West Virginia and Maryland. The commission said it was not able to determine West Virginia expenses. The company had proposed a uniform rate scale for both states. There are three separate scales in West Virginia at present.

Wisconsin

Bus Fare Increased

AN increase in Madison bus fares totaling \$104,000 a year was approved recently by the state public service commission. Adult riders now pay 15 cents or two tokens for a quarter; children from twelve through high school a straight 10 cents; and fares for children under twelve remain at a nickel.

Formerly, adult patrons paid a straight 10 cents, and children twelve and above paid 10 cents, or three tokens for 25 cents.

The commission did not change the zone rates in the outlying areas, and transfer privileges remain the same.

Both the city and surrounding communities opposed the fare increases proposed by the Madison Bus Company, but the commission's opinion accompanying the order did not agree with their arguments.

The commissioners said that it was up to the management of the company to determine when the "law of diminishing returns" begins operating and not "public authorities."



Progress of Regulation

Township Restrained from Using Zoning Law Restrictions to Bar Construction of Transmission Line

A CASE which the Pennsylvania court of common pleas called one "of first impression" was precipitated by a township's efforts to prevent an electric company from constructing a transmission line. The company had found it necessary to carry energy from a new generator across the township to a substation in another township which badly needed additional power. Commission approval of the site of the line had been obtained. None of the energy would be used in the township protesting the construction.

After purchasing a number of parcels outright and obtaining rights of way over many others, the company started construction. The police officer of the town then served notice that pursuant to a local zoning ordinance a building permit had to be obtained for the construction and that a fine of \$100 would be imposed for each day that work was continued or construction maintained without a permit. The company's action to restrain the town from interfering with the work followed.

The court stated the issue in this way:

Has a first-class township the authority to regulate a public utility company by zoning ordinance? In the answer to this question lies the determination of this suit. This strikes at the heart of the matter.

Commission Jurisdiction Exclusive

The court pointed out that as a public utility the company was under the exclusive jurisdiction of the commission and could, with its approval, exercise the right of eminent domain. No court or township has authority to regulate a utility in exercising this right or in rendering service to the public.

A claim was rejected that by implication the First Class Township Law gave a township authority to regulate uses and structures of utilities, other than buildings. Any such implication would tend to weaken the deeply imbedded policy of the commonwealth to commit the regulation of utilities to a commission of statewide jurisdiction. Furthermore, the township law expressly provides that it shall not modify the utility code. The consequences of any other finding were described in these words:

Now, if a first-class township by zoning ordinance can exclude a utility entirely from within its borders, or can dictate where structures of the utility shall be erected or how they may be used, it then most certainly is enabled to (1) regulate the utility, and (2) make it impossible for the utility to perform its statutory duty of rendering adequate and efficient service.

PROGRESS OF REGULATION

The difference between a local concept of public good and the interests of the public at large was cited as one of the reasons for the legislature's delegation of regulatory authority to a body with statewide jurisdiction. The state court continued:

It is clear that the proposed transmission line is necessary for the rendition of efficient service to the public and that that necessity transcends the legitimate objectives of any one of the political subdivisions of the commonwealth. . . .

Local authorities not only are ill-equipped to comprehend the needs of the public beyond their jurisdiction, but,

and equally important, those authorities, if they had the power to regulate, necessarily would exercise that power with an eye toward the local situation and not with the best interests of the public at large as the point of reference.

Finally, the court summed up its conclusions by stating that the local zoning law was illegal and void when applied to the company's transmission line construction. In event of a conflict, the court said, between the utility's exercise of its right of eminent domain and the provision of a zoning ordinance, the latter must yield. *Duquesne Light Co. v. Township of Upper St. Clair, March, 1954.*



Gas Company's Suit for Damages Because of Violation Of Transportation Agreement Dismissed

A PROCEEDING brought by one gas company against another because of the latter's refusal to carry the first company's natural gas through its pipeline system was dismissed by the United States court of appeals for lack of jurisdiction.

The court ruled that the questions as to whether public convenience and necessity required the transportation and, if so, how much and at what rates, and as to what facilities or services should be abandoned to accommodate the other company were within the primary jurisdiction of the Federal Power Commission. Failure to exhaust the remedies before that body

precluded the bringing of a court action for failure of the other company to transport the gas as per agreement between the parties.

Personal and oral requests to the Federal Power Commission that the other company be compelled to live up to its agreement and to file a tariff for the service were insufficient to constitute an exhaustion of administrative remedies even if the requests were denied, since the commission's rules required that such complaints be in writing. *Interstate Nat. Gas Co. v. Southern California Gas Co. et al. 209 F2d 380.*



Railroad's Rule of Thumb Will Not Justify Discontinuance

A RAILROAD, seeking authority to discontinue agency service at certain stations, appealed to the Virginia supreme court of appeals after the corporation commission had refused to authorize discontinuance. The railroad claimed that

receipts derived from the agencies did not justify their continued existence.

While the amount of revenue at some of the stations exceeded the amount expended for costs, the railroad rested on a rule of thumb that had been adopted by

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its operating department. The rule required discontinuance of any agency incurring out-of-pocket costs in excess of 5 per cent of gross revenue. By the application of this formula, the company had determined that the entire division had been operating at a loss for the period. The railroad offered no other evidence to show that any individual station had been operating at a loss.

The court, in denying authority to discontinue, commented:

We agree with the commission that this "rule of thumb" invoked by witnesses for the railroad company does not justify the discontinuance of these stations. As the commission aptly pointed out in its opinion, the application of such a rule would permit every railroad company in the state to select only its more profitable stations for retention and discard the less profitable

ones, regardless of the present or future needs of a community. It fails to take into consideration the important factors of public convenience and necessity which must be considered in determining whether the agency service at these stations should be retained or discontinued.

The fact that no formal objections had been raised by or on behalf of the patrons of the stations was of no consequence. The commission had the power and duty of requiring transportation companies doing business in the state to establish and maintain all reasonable public service facilities. Objection or lack of objection on the part of the public could not condition such power or duty. The court was of the opinion that the discontinuance would not be in the public interest. *Pennsylvania R. Co. v. Com. ex rel Virginia State Corp. Commission et al.* 79 SE2d 607.



Co-operative's Complaint against Competition Dismissed

THE North Dakota commission dismissed a rural electric co-operative's complaint against a power company's extension of service from a high-voltage transmission line to a residence located in a territory in which the co-operative was already serving several nonfarm customers. The commission ruled that since the company already had lawfully commenced serving the area, no certificate was required for the extension even though it resulted in competition with the co-operative.

Commissioner Nelson did not concur with the majority opinion on the lawfulness of the company's present operation. He called attention to the fact that the company had not received a certificate to serve the area even though it had been authorized to build a transmission line to

carry energy between two cities. He developed his argument in this manner:

I cannot concur in the inference presented in this order that the building of a transmission line between Devils Lake and Oberon, North Dakota, constituted authority (under the statutes as a certificate of convenience and necessity) empowering this company to extend their distribution lines into any district or locality they may choose on both sides of this line, under the pretense that this constitutes a lawful commencement of operations in a district. By this pretense, it could be logically assumed that distribution lines could radiate into any district here in North Dakota from the hundreds of miles of transmission lines, which the various utilities in this state have, without first obtaining authority

PROGRESS OF REGULATION

from this commission. A transmission line is one of high voltage, designed to carry current a considerable distance; whereas, a distribution line is one of low voltage and used to serve customers at a required low voltage. It is not com-

mon practice, nor is it economically feasible, to serve a single customer off from a high-voltage line such as this.

Nodak Rural Electric Co-op., Inc. v. Otter Tail Power Co. Case No. 5093, January 13, 1954.



Rates Reduced upon Conversion to Natural Gas

RATES to meet the situation resulting from the introduction of natural gas were prescribed by the Massachusetts department in lieu of rates proposed by a gas company. It was held that the proposed rates did not distribute costs in a fair and equitable manner although they were designed to decrease over-all revenues by about 5 per cent.

The prescribed rates increased the cost of gas to customers who have been beneficiaries of service at less than cost, but decreased the cost to the rest of the customers. It was believed that the decrease in the cost of gas at higher-use steps would enable the company to compete with other fuels.

Cost of Capital

The company was capitalized at a debt ratio of about 34.2 per cent. This was held to be proper for rate-making purposes, although the department conceded that it was probably an uneconomic capitalization under present conditions. It has been many years since the company has been obliged to go into the market for equity financing, and all of its recent financing has been accomplished by the issuance of long-term debt.

Testimony indicated that the fair cost of equity money to the company would be at the rate of 8.7 per cent on a 75 per cent pay-out ratio. This opinion was, however, based upon a historical stock price averaged over a period of ten years. The de-

partment rejected, as improper, this approach to the problem of the cost of equity money.

It found that on the basis of recent market prices, using a 75 per cent pay-out ratio, the earnings-price ratio would be about 7.88 per cent. This figure was adopted.

Minimum Charges

The company's basic domestic schedule in one zone included a rate of 34.5 cents per hundred cubic feet without step rates of any kind. Rates for water heating, refrigeration, and house heating were included in other schedules, starting at 65 cents for the first hundred cubic feet and stepped down thereafter.

The department said that a first step rate of under one dollar is almost unknown in other gas companies in the state and that there is a tendency on the part of careful management to design rate schedules with a first step in excess of one dollar. It concluded that such a schedule to apply to the basic schedule is necessary if the burden of furnishing gas service is to be equitably distributed.

It was pointed out that such a rate schedule would not be feasible in connection with the use of prepayment meters. There is additional cost of serving such meters over and above the regular meters. The department urged the company to consider the desirability of ceasing to render this type of service, which, in its opinion,

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is uneconomical and opens the door to possible discrimination.

Stand-by Facilities in Rate Base

When the company converted to natural gas it was manufacturing gas exclusively by the water gas method. Incident to such conversion, it modified its water gas sets to produce high British thermal unit oil gas appropriate for stand-by and peak-shaving purposes. A question was raised as to whether that plant was properly a part of the company's rate base. The department said that aside from the question as to whether it should interfere with a decision of management, it was fully aware of the geographical location of New England and of the critical situation which

might arise in case of a break in the line through which the company was being furnished with natural gas.

Furthermore, it said, to abandon an existing major investment in this way would entail very serious problems of accounting treatment and amortization. It would leave the company without the ability completely to control its cost of purchased gas, unless it were to install propane equipment for such purpose. To abandon existing plant and to install new plant designed to accomplish the same purposes served by the abandoned plant seemed to be economic waste.

The department concluded that the stand-by facilities should not be eliminated from the rate base. *Re Pittsfield Coal Gas Co. DPU 9757, February 18, 1954.*



Metering Program Not Discriminatory

A WATER company's customer unsuccessfully complained to the Pennsylvania commission that he was being discriminated against. He based his complaint on the fact that he was being charged on a meter basis while other customers were on a flat-rate basis.

The commission noted that the company's tariff clearly stated that a customer might be changed to a metered basis at the discretion of either party. Since the company was in the process of metering all customers, the commission dismissed

the complaint with this comment:

It is not to be expected that a metering program can be accomplished overnight or within a short period of time. As long as a public utility pursues such a program diligently, it cannot be said to be discriminatory because one customer is placed on a metered basis before another.

Madison v. Yardley Water & Power Co. Complaint Docket No. 15962, March 15, 1954.



Other Important Rulings

Water Line Not Public Utility. The owners of a private water line outside a city, who charge a fee to each neighbor tapping the line and require an agreement to share maintenance expenses and hold the owners harmless for any loss of service, are not operating a public utility

which is subject to regulation, held the Kentucky court of appeals, where the city installs meters and makes all users, including the owners, pay the regular rate for the city water transported through the line. *Austin et ux. v. City of Louisa et al. 264 SW2d 662.*

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Telephone Depreciation. The Georgia commission, in approving new charges for a telephone company, ruled that the annual depreciation rate of 4 per cent of plant and equipment was reasonable and adequate to meet the company's requirements. *Re Arnold (N.D.) Teleph. Co. File No. 19385, Docket No. 576-U, February 3, 1954.*

Telephone Valuation. The Georgia commission, in permitting a telephone company to increase its exchange rates, pointed out that an investment value based upon actual costs was the proper method of arriving at a rate base and that the principle of using plant investment values based on reproduction costs was not proper. *Re Cairo Teleph. Co. File No. 19413, Docket No. 602-U, February 3, 1954.*

Municipal Utility. A city which operates a utility for the public use, commented the Alabama supreme court, is engaged in a proprietary or business enterprise and may make a charge for service furnished the public. *Waterworks & Sanitary Sewer Board et al. v. Dean, 69 So2d 704.*

Discontinuance Unaffected by Covenant. A conveyance of land to a railroad wherein the railroad covenanted to maintain a station at all times, was not considered by the Missouri commission in determining the public need for the continued operation of the station. *Re Thompson, Trustee, Case No. 12,575, February 24, 1954.*

Certificate Revoked. The certificate of a motor carrier which has failed to move equipment over the highways or render service for more than ten days should be revoked, notwithstanding the carrier's in-

tention to furnish service in the future, held the Michigan supreme court, where the failure to serve was attributable to the carrier and not to a lack of business. *Alger Co. v. Michigan Pub. Service Commission et al. 62 NW2d 588.*

Return on Future Construction. The Missouri commission commented that it would only allow a telephone company a return on property actually used in public service and would not fix rates which permitted the company to earn a return on a contemplated investment. *Re Missouri Teleph. Co. Case No. 12,520, February 9, 1954.*

Public Utility. The principal determinative characteristic of a public utility, commented the Ohio court of common pleas, is that of service to, or readiness to serve, an indefinite public which has a legal right to demand and receive the service or commodity. *Motor Cargo, Inc. v. Board of Township Trustees of Richfield Township et al. 117 NE2d 224.*

Creation of District. A petition for formation of a district for the disposal of communal wastes should be determined by the state board of water engineers, and not the county commissioners, held the Texas supreme court, where the statute vesting jurisdiction in the board had been enacted by the legislature with full knowledge of an existing statute which gave the county commissioners power to create water control districts located exclusively within one county. *Harris County Water Control & Improv. Dist. No. 39 et al. v. Albright et al. 263 SW2d 944.*

Commission Findings Upset. The rule that a court will not disturb a finding of fact made by a commission on competent evidence, held the Utah supreme court,

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does not apply to an attempted conclusion of law based upon the commission's interpretation of a carrier's certificate. *Peterson v. Utah Public Service Commission et al.* 266 P2d 497.

Private Carrier Permit Denied. An application to operate as a private motor carrier should be denied, according to the Colorado commission, if vigorously protested by certificated common carriers having authority to perform the same service in the same area and not supported

by customer witnesses. *Re Jones (Jones Lumber & Supply) Decision No. 42145, Application No. 12752-PP, March 4, 1954.*

Convenience and Necessity. The element of public convenience and necessity is a continuing condition, commented the Connecticut commission, in a proceeding to revoke a certificate, and is not to be considered only for the purpose of issuance of the original certificate. *Re Bradley, July 27, 1953.*

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Public Utilities Reports (3d Series) are published in five bound volumes a year, with the P.U.R. Annual (Index). These reports contain the decisions of the state and federal regulatory commissions, as well as court decisions on appeal. The volumes are \$7.50 each; the Annual (Index) \$6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

City and County of Denver
v.
People ex rel. Colorado Public
Utilities Commission et al.

Additional defendant: Mountain States
Telephone & Telegraph Company

No. 17113

— Colo —, 266 P2d 1105

February 8, 1954

APPEAL from judgment affirming commission order approving schedules embodying intrastate telephone rate increase; judgment affirmed. For commission decision, authorizing increased rates, see (1952) 94 PUR NS 33.

Appeal and review, § 32 — Commission orders — Scope of review.

1. Courts reviewing commission orders are limited in their inquiry as to whether the commission exceeded its jurisdiction, abused its discretion, or regularly pursued its authority, p. 130.

Rates, § 2 — Nature of rate making — Legislative function.

2. Rate making is a legislative rather than a judicial function, and that function has been delegated to the commission, p. 130.

Rates, § 538 — Telephone system — Statewide basis — Value of service concept.

3. A commission rate order, spreading increased telephone rates to various subscribers on a statewide basis, and adopting the value of service concept therefor, was upheld in view of the commission's jurisdiction to determine the applicable intrastate telephone rates and the method of computation therefor, where the factual evidence appeared to be sufficient to support the commission's order and a lower court's judgment upholding the order, although exact statistical data and definite facts and figures to support the specific rate increases could not be had, p. 130.

Rates, § 650 — Rate orders — Sufficiency of findings.

4. Whether or not the commission entered specific findings of fact supporting the exact rate increases authorized by it becomes immaterial where the record discloses substantial evidence relating to the order, p. 130.

Rates, § 209 — Unit for rate making — Telephone company — Statewide basis.

Statement that the commission followed the "statewide" basis for fixing telephone rates, p. 131.

(ALTER and HOLLAND, JJ., dissent.)

COLORADO SUPREME COURT

APPEARANCES: John C. Banks, Malcolm D. Crawford, Denver, for plaintiff in error; Duke W. Dunbar, Attorney General, Frank W. Wachob, Deputy Attorney General, and William T. Secor, Assistant Attorney General, for defendant in error, Public Utilities Commission, and the individual members thereof; Akolt, Campbell, Turnquist & Shepherd, Denver, for defendant in error Mountain States Telephone and Telegraph Company.

BRADFIELD, J.: This case is here on a petition for a writ of certiorari by petitioner, the city and county of Denver, against respondents, the Public Utilities Commission of the State of Colorado and its individual members, and the Mountain States Telephone and Telegraph Company, a Colorado corporation, to review the findings and judgment of the district court of the city and county of Denver, which had approved an order of the public utilities commission granting a tariff rate increase. The parties appear here as in the trial court and will be designated as Denver, commission, and company.

On May 6, 1952, 94 PUR NS 33, after a hearing thereon, the commission fixed the fair value of the company's Colorado property as of January 31, 1952, at \$58,568,550 and ruled it entitled to a fair return of 6.35 per cent thereon, and for \$5,579,410, or 19.95 per cent over and above the total intrastate operating revenues for the year as the increase in revenue to which the company was entitled to enable it to realize such fair rate of return, Decision No. 38593. Thereafter on May 9, 1952, the company filed with the commission its proposed

schedule of rate increases designated as P. U. C. Tariff No. 4. The commission suspended the proposed tariff schedule and May 27 to June 3, 1952, held hearings thereon; and June 9 and 20, 1952, entered its order and supplemental order finding the company's proposed tariff schedule "just, reasonable, nondiscriminatory, and nonpreferential," and authorized the rates to become effective forthwith, Decision No. 38836. A petition by Denver for a rehearing was denied. Thereupon Denver filed its petition in the district court of the city and county of Denver for certiorari and a hearing was had thereon, the court on December 18, 1952, entering its findings and decree affirming the commission's order. Denver brings the cause here for review, and asks for a reversal of the judgment.

[1] On review upon certiorari, under Rule 106(4), R.C.P.Colo., courts are limited in their inquiry as to whether the commission had exceeded its jurisdiction, had abused its discretion, or had regularly pursued its authority. *Public Utilities Commission v. Erie* (1933) 92 Colo 151, 18 P2d 906.

[2] The making of rates to govern public utilities is held to be a legislative and not a judicial function. In Colorado that legislative function has been delegated to the public utilities commission. 1935 C.S.A. Chap 137, § 15; *People ex rel. Public Utilities Commission v. Mountain States Teleph. & Teleg. Co.* (1952) 125 Colo 167, 94 PUR NS 278, 243 P2d 397.

[3, 4] The commission having here found the company was entitled to additional Colorado intrastate revenues, it became necessary for it to

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determine how the required earnings should be spread in rates to its various subscribers.

In *People ex rel. Public Utilities Commission v. Mountain States Teleph. & Teleg. Co.* *supra*, this court, overruling its prior decisions, recognized the statewide basis for the fixing of intrastate telephone rates, and that the public utilities commission is the sole agency authorized to regulate the telephone business and rates in Colorado. The commission herein followed this "statewide" basis for rate fixing, and adopted the "value of service" concept therefor. The trial court approved the commission's action.

In their briefs the parties discuss the methods of telephone rate making, the "value of service" concept, and the "cost of service" concept. Denver does not here question the "statewide" basis for rate making, but urges that whatever concept is adopted, it must be based on sufficient, objective, reviewable data, facts, and figures therefor. Denver urges that the commission here had no sufficient evidence for its order, and made no findings thereon, therefore, the commission's order was arbitrary, capricious, and unreasonable. Denver urges the trial court's approval of the commission's order was error.

The commission had jurisdiction to determine the applicable intrastate telephone rates and the method of computation therefor. Having previously determined the company was entitled to a \$5,579,410 increase in operating revenue, and approved the rate increase necessary therefor, the sole question now before us is, did the evidence presented support the order of the com-

mission and the judgment of the trial court?

To sustain its proposed tariff increases the company presented two of its engineers, tariff rate experts, who testified as to the "value of service" concept on a statewide basis, as applicable to Colorado. They regarded the "cost of service" concept by separated units as inapplicable in the determination of rates. Evidence was presented of the kinds of service and their rates, the differences in kinds of service, the average sizes and types of exchanges, their nature, properties, areas served, the demands for and uses of the several services by groups, their interrelation with other groups, the objectives sought, the insufficiency of revenues, and the rate increases applicable to the several types of service. These facts were related to, and considered in, the rate-making decision. The witnesses admittedly base their proposed rate increases on said facts and on their studies, experienced judgment and ultimate opinions. Denver urges the facts so presented did not furnish sufficient, objective, statistical, reviewable data, facts, and figures to support the commission's order and trial court's judgment.

Denver's own rate expert admitted:

" . . . I believe there has never been and never will be devised exact formulas, mathematical or otherwise, upon which a rate determination can be made."

And relative to the value concept:

" . . . there is no yardstick of value that has ever been developed, it is only obtained by the exercise of experienced judgment and that is the only practical basis in the application

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of this component in the development of a rate structure."

The company's rate expert similarly testified, "There are no facts, no objective principles, or standards, on which a rate schedule is built."

The company experts insist, for rate making, the value of service concept should be followed; that the cost of service studies are limited to the overall business operation rather than separately considered for rate purposes. Denver's rate expert insists otherwise, that the two concepts, cost of service and value of service, "are both important and they both must be given their full consideration in the final determination." These statements disclose the major difference here urged.

It is apparent that, as to exact statistical data, definite facts and figures to support the specific rate increases, such evidence cannot be had. No rate expert has suggested any such type of evidence, except only a separated cost of service study. The experts differed on the value of such cost studies. Both the commission and the trial court heard the disputed issue and resolved same for the value of service concept and against the cost concept. Considerable factual evidence of the basis for the rate increases is in the record. To these facts the company's rate experts applied their experienced judgment and ultimate opinions. We cannot say the factual evidence here presented was insufficient to support the commission's order and the court's judgment. We will not disturb the trial court's findings thereon.

On the over-all statewide basis the commission found the rates fair, reasonable, nondiscriminatory, and non-

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preferential. Whether or not the commission entered specific findings of fact supporting the exact rate increases becomes immaterial where the record discloses substantial evidence relating thereto. The commission's general statement, findings, and order here are sufficient. The other alleged errors become immaterial.

The commission had jurisdiction and there is sufficient competent evidence to support its order. The trial court's judgment approving the commission's order was right.

The judgment of the trial court is affirmed.

Alter and Holland, JJ., dissent.

HOLLAND, J., dissenting: I cannot subscribe to the majority opinion which affirms a judgment that supports an order of the utilities commission, which is not based upon any reviewable, objective findings. All we have before us is a discourse by the commission about the elements of the two concepts of the methods entering into the fixing of a rate structure, namely, the concept of "cost of service" and the nebulous "value of service" concept, without findings based on any objective or reviewable facts concerning whether the proposed rates are fair, just, reasonable, equitable, and nondiscriminatory. In fact there is no reviewable order before us. A study of the entire testimony, as well as the so-called findings of the commission, discloses an abject abdication by the commission of its statutory duty and yielding to the self-serving pattern presented by the utility.

It is the accepted concept, and further advanced by the opinion of our court in the case of *People ex rel.*

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Public Utilities Commission v. Mountain States Teleph. & Teleg. Co. (1952) 125 Colo 167, 94 PUR NS 278, 284, 285, 243 P2d 397, 401, that the public utilities commission, an arm of the state government, by the facilities it is supposed to have, can make, on behalf of the public, its own survey, investigation, and analysis of the elements that should enter into the fixing of a fair and nondiscriminatory rate for utilities operating within the state. When the power to fix utility rates was withdrawn from home-rule cities by the decision above referred to, and assuming that such cities could not effectively and efficiently accomplish such a task, this court said:

"In the state of Colorado there are now fourteen home-rule cities operating as such under Art XX of the Constitution of Colorado. To uphold the contention of counsel for the city, and Sarpy, in effect, would be to determine that each of these cities, in regulating telephone rates within their limits, should analyze and determine the property, revenues, and expenses of the telephone company involved in the furnishing of telephone service in such city; that, by the exercise of some mysterious magic, they should segregate these from the properties, revenues, and expenses of the company not directly involved in furnishing service to the city in question; and arrive at a rate which would yield a fair return to the company on that portion of the property involved in providing such local service, and insure adequate protection to the consuming public. To assume that such a task can be accomplished effectively and efficiently, or at all, is manifestly absurd

and ridiculous. In determining whether confiscation was brought about by any rate which might be established by any one of the fifteen separate regulating agencies which would thus be operating upon the business of the telephone company at the same time, a court would of necessity be required to go beyond city boundaries and inquire into the property, revenues, and expenses of such utility on a statewide basis in order to do justice.

"The contention that each city operating under the amendment may regulate public utilities operating within its borders must apply to all alike. It follows that, if it applies to telephones, it likewise applies to railroads. In case of these utilities one company may operate in all municipalities and throughout the state.

"It also follows that the one utility may be regulated by as many powers as there are cities of the specified class within the state, and by the commission as to all territory outside the cities. Each city may fix a different rate; the commission may fix a different rate from either city, for the same utility and for like service.

"Can it be denied that such a scheme would not infringe the equal rights of citizens of the state, or the well being of the state? It would not only permit the corporation to do this, but would compel them to do so, regardless of the necessary discrimination between citizens of the state as to rates to be charged and regulations to be observed. It would require the deficiency of income from one city to be supplied by overcharge in other cities, or by the body of the state,

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outside the cities; for the Constitution, as construed by the courts, guarantees the reasonable expense of operation, and a reasonable return on the investment in public utilities in the matter of fixing the rates to be charged. The logical result of such a plan is confusion, chaos, and injustice.' "

If the commission does not have, and is not provided with the means and facilities to make its own investigation, and not have to rely upon the opinion of the utility involved, then it is a nonentity and of no real public benefit. When called upon to fix statewide rates or tariffs, it should be in a position to do so; if not, the interests of the public should not be imposed upon by the commission acting solely as a referee between two proposed theories. It should openly and frankly say to its public, "We are not prepared to make a long and intensive study of the matters involved," and refrain from doing so until it can effectively operate as the agent of the people in the people's interest. In effect, the situation has not been remedied by the withdrawal of this rate-fixing question from the home-rule cities, because, as it now appears, the city authorities would have been in just as good a position to say to the utilities, "We will accept your estimate," and fix the rates accordingly. The transfer of authority over such matters was well intentioned; however, the results are synthetic.

An apparent basic error on the part of the commission arises from its confusion of the statewide jurisdiction on one hand, and a regulation with statewide rate making on the other. In May, 1952, 94 PUR NS 33, the commission on a hearing, and after re-

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ceiving some competent evidence as to the question of a fair rate of return on the company's statewide valuation, determined that the company was entitled to receive 6.35 per cent as a fair rate of return on a valuation of \$58,568,550, and that the sum of \$5,579,410 was an amount the company was entitled to receive from an increase in its revenue, or in other words, an increase of 19.95 per cent. Immediately thereafter the company filed a tariff with the commission which contained the rates, tolls, rentals, charges, classifications, rules, and regulations for interstate telephone service in Colorado, and in this tariff schedule was shown the proposed distribution of the amount of the increased revenues.

The only facts and figures before the commission on its hearing, on this tariff schedule that is now before us, were the figures referred to on the question of rate of return considered by the commission in arriving at the above amount of increase to which the company was entitled. Some of these figures relate, and properly so, to the elements of investment, costs, value of equipment, etc., and are not figures that in any way provide a basis for rate making on the "value of service" concept. I have no quarrel whatever with the proposition that the company or utility is always entitled to a fair return on its investment and operations; and where equitably distributed, it should be borne by the public participating in the use and benefits of such service without complaint. In that connection, however, I believe that the burden should be fairly and equally distributed, and not as it appears, where the deficiency of income in one group is made up by an over-

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charge on other groups, all of which has happened here, because it is undisputed that Denver situation alone, under this "value of service" concept approved by the commission and confirmed by the trial court and this court that Denver has 44 per cent of the number of telephones in the entire state, and that the proposed increase in Denver rates is approximately 52 per cent. This discriminating situation in Denver arises from the commission's acceptance of the utility rate engineer's statement to the effect that the more telephones in a city or group the greater the cost to operate the individual telephone. To a bystander, that sounds as if to say, the more business you have, the more revenue you take in, the less profitable it is to operate. On this theory, we at once have the situation, uncontradicted by anything in the record, that under the utility's formula as accepted in toto by the commission, the larger places must pay for the smaller ones. A balance between these situations should be supported by facts and not by the convenient striking of balances by the utility. The same bystander might suggest the following query: "If the rates throughout the state were fair, equitable, and not discriminatory, and without general public complaint prior to the finding that the revenues were not sufficient to sustain a reasonable return on the investment, then why present a new and different schedule now instead of leveling off the 19.95 per cent increase in relative proportion on every phone used in the state?" If this was done, there could be no complaint from any one user that the necessary increase was more burdensome on him than anyone else.

The record discloses that the proposed increase varies from 12½ per cent in some instances, 35 per cent in other instances, and, in a few instances, of from 75 per cent to 223 per cent. The following is a fair example of the many instances which show the nature of the testimony of the utility rate engineer, and which was accepted in toto by the commission: The witness testified, "We know that business service greatly helps to carry the residence development" There is absolutely no evidence presented to indicate *how* the company knows.

Q. How then, have you submitted to the commission any figures to the extent of which business services are carrying residential services, or to the extent to which urban areas are carrying rural areas? *A.* No, I have no such figures.

Q. You recognize the principle that the rates that are to be approved by the commission are nondiscriminatory, is that correct? *A.* That is correct.

Q. And you have no figures, you have submitted no figures, as to how much business services are carrying residential services, or how much urban areas are carrying rural areas? *A.* That is correct.

Time and time again throughout the extended testimony of the utility's rate engineer we find expressions comparable to the following: ". . . then the next step in setting up the schedule initially that *I follow*, is to determine generally what *I think* the level should be for the highest in the group then I get a skeleton for the over-all statewide schedule by filling in the groups between, step by step, for each class

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of service." This is a subjective approach based entirely upon what the company experts in their good judgment believed to be the fundamentals from their "long experience;" however, wholly without presenting any data, facts, or figures from which the commission could exercise its own independent judgment, which was doubly necessary in view of the fact that the commission is shown to be impotent as to being prepared to make its own investigation, which the public expects it to do. When the commission fails to tell us and make clear the evidentiary support for its findings, we are unable to exercise a judicial review in such cases. In cases too numerous to mention this court has so clearly settled the question that an order of an administrative tribunal not supported by sufficient or adequate findings of fact for this court to ascertain the objective principles upon which the commission acted cannot stand. It need not again be said that it is insufficient for the commission to merely state its conclusion without special findings of fact. This court has said in rate cases before the public utilities commission that the act creating the commission and defining its powers and duties requires this court to determine whether the order of the commission is just and reasonable, and whether its conclusions are in accordance with the evidence. We further have said that the rule pertaining to reviews calls for a consideration of the evidence in order to determine whether there is competent testimony to support the findings of the commission and whether the commission's order is just and reasonable. We have not hesitated to set aside or

modify the orders of the commission if they were based on propositions in support of which there is no evidence. We conclude this phase by saying that the duty of review that is imposed upon us requires that the facts be found and the reasons stated.

If I entered into all the ramifications of the testimony in this case, this dissent would be unduly lengthened; however, I challenge any reading of the testimony that discloses any facts or figures, or anything else, except the experienced judgment of the utility's servants in the arbitrary schedule for distribution of the proposed rate increase. To my mind, and I do not believe that it can successfully be challenged, the "value of service" concept is not the only method of arriving at a fair and nondiscriminatory rate of increase, but is only one of the two elements, the other being "cost of service" concept. It has been held that a public service company cannot make a difference in price according to the use made by the consumer, *nor is a discrimination properly based on the value of the service to the customer.* *Bailey v. Fayette Gas-Fuel Co.* (1899) 193 Pa 175, 44 Atl 251.

". . . And from all the legion of cases upon this subject the distinguished counsel for the appellee have not been able to cite a single one in which a discrimination based solely on the value of the service to the customer has been sustained." *Supra*, 44 Atl at p. 252.

It is here contended that it is plaintiff in error's position that the rates involved should be on a "cost of service" basis. That is not the case. The city contends that "cost of service" is one element to be con-

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sidered along with the "value of service" concept. The commission adopted the utility's concept and made a finding, not on a conflict of realistic facts or data, but by acceptance of a theory promulgated by the utility's representatives or agents. Such testimony as was before the commission cannot be dignified by the term "evidence." In the case of *Ohio & C. Smelting & Refining Co. v. Public Utilities Commission*, 68 Colo 137, PUR1920D 197, 206, 209, 187 Pac 1082, 1086, it is said in speaking of the commission: "It is not a court, to consider and determine only that which is brought before it. It is a legislative agent, with certain administrative duties. One of its duties is to investigate and determine in the interest of the state. For this purpose the state has provided it with the proper engineers and other expert assistants to ascertain whatever facts may be necessary or important to justify a conclusion in any case, and this independent of, or in addition to, any testimony produced by the parties directly interested.

"The commission is not confined to technical rules of procedure, and as an investigator its duty was to ascertain the facts so important and basic in reaching its conclusion.

". . . The prima facie presumption of the correctness of the acts of the public service commission applies only to the facts found; and where there is no finding by the commission on a necessary point and the evidence certified in the record to the supreme court is indefinite and unsatisfactory, the commission's order will not be sustained." 43 Am Jur p. 724, § 227.

The order here involved is not based on a conflict in evidence, rather on a conflict in theories. The experience, judgment, and philosophy of rate making presented by the utility is interesting; however, orders of a commission in these cases must have a basis that will not vary with the individual.

For the reasons stated herein, it is my opinion that the judgment of the district court affirming the findings and order of the commission should be reversed.

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Re Boston Edison Company

D.P.U. 10744
December 29, 1953

REQUEST for instruction with respect to accounting for amortization of emergency facilities; procedures prescribed.

Accounting, § 38 — Tax reserve.

1. A company which is taking advantage of the fast tax write-off provision of the Internal Revenue Code should hold in reserve any reduction in

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federal income taxes resulting from the accelerated amortization of emergency facilities during the 5-year write-off period, in order that provision be made for the higher taxes payable when no more depreciation can be charged, p. 139.

Depreciation, § 26.1 — Effect of fast tax write-off.

2. A company which is taking advantage of the fast tax write-off provision of the Internal Revenue Code should account for emergency facilities in the same manner as other property and should accrue depreciation on its books at normal rates, notwithstanding the fact that for tax purposes the emergency facilities are being depreciated over a 5-year period, p. 140.

Accounting, § 28.1 — Accelerated amortization — Depreciation of defense facilities.

3. A utility which has obtained emergency certificates from the Internal Revenue Bureau permitting accelerated amortization of defense facilities should maintain its books of account in the following manner: (1) During the sixty-months' amortization period the company shall include under "Taxes Assignable to Electric Operations—Acct. 551" in an account entitled "Provision for Future Federal Income Taxes" an amount, or amounts, equal to the reduction in federal income taxes resulting from the amortization of emergency facilities and that such amount shall be credited to an account entitled "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320,"; (2) after the said sixty-months' amortization period, the company shall charge to "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320" and shall credit to "Portion of Current Federal Income Taxes Deferred in Prior Years" under "Taxes Assignable to Electric Operations—Acct. 551" an amount, or amounts, equal to the increase in the federal income taxes payable for that year resulting from the fact that normal depreciation cannot be deducted because of the previous amortization of the cost of the facilities pursuant to such necessity certificates; (3) the company shall charge to "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320" and shall credit to "Portion of Current Federal Income Taxes Deferred in Prior Years" under "Taxes Assignable to Electric Operations—Acct. 551" an amount, or amounts, equal to any balance of "Reserve for Deferred Federal Income Taxes" as at December 31st of each year related to plant retired during said year which plant had been amortized under such necessity certificates; (4) the company shall by statement duly verified report with respect to each necessity certificate any pertinent data or calculations which may from time to time be requested; (5) the company shall in its annual return to this department insert appropriate footnotes to its Income Statement "Acct. 551—Taxes Assignable to Electric Operations" and to the amount reported as "Income Balance Transferable to Profit and Loss" in explanation of the deferred taxes resulting from said accelerated amortization, including the amount thereof, p. 140.

By the DEPARTMENT: Boston Edison Company, an electric company subject to Chap 164 of the General Laws (Ter. Ed.), requests an order from the department authorizing and directing it to adopt certain account-

ing procedures in connection with the accelerated amortization of portions of the cost of emergency facilities pursuant to § 124A of the U. S. Internal Revenue Code, 26 USCA § 124A.

It appears that upon the application

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of the company the Defense Production Administrator has issued necessity certificates with respect to certain facilities of the company, the estimated cost of which is \$37,133,084, granting the company authority to amortize for federal income tax purposes over a period of sixty months, beginning either with the month after the completion of the facility or with the beginning of the succeeding taxable year, as the company may determine, a portion of the cost of recently installed generating and transmission property, averaging approximately 32½ per cent of said estimated cost, which the Administrator has certified to be necessary in the interest of national defense. In its request the company sets forth that additional applications for necessity certificates may be made hereafter as circumstances may permit.

Said section permits the recipient of a necessity certificate who has elected to take the amortization deduction to discontinue such accelerated amortization with respect to a facility at any time prior to complete amortization of the costs which have been certified as attributable to defense purposes, and in lieu thereof deduct normal depreciation allowable for federal income tax purposes.

The amortization for federal income tax purposes of the costs of such facilities which have been certified pursuant to § 124A in lieu of normal depreciation will result in the reduction of federal taxes on the company's income during the period of accelerated amortization and in the increase of such taxes during the remaining life of the facility. The use of the accelerated amortization for tax purposes will create additional income for the com-

pany during the period of such accelerated amortization but will essentially be offset by an increase in federal tax payments in the period following the accelerated amortization period. The federal taxes on income thus saved during the accelerated amortization period, over the taxes which would be due if normal depreciation had been taken for federal income tax purposes, will be available for general corporate purposes and should result in material savings in the cost of interim financing of property additions.

[1] This request of the Boston Edison Company for accounting instructions for accelerated amortization is the first upon which the department has been formally requested to rule. The department has been cognizant of the treatment of this departure from normal accounting practice and has followed with interest the rulings of other regulatory bodies. Under normal accounting practices the books of the Boston Edison Company should show actual taxes accrued for payment and actual net income for the year. However, such a procedure would reflect abnormally low earnings for the following period of years. It has been the considered opinion of the department that the accounting procedure as requested in the petition of the company is a reasonable solution to the problem. We are of the opinion that if a company elects to exercise the authority granted under the outstanding necessity certificates and under others that may hereafter be issued, the interests of the customers of the company and of its security holders require that any reduction in federal income taxes resulting from the accelerated amortization of emergency facilities

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during the amortization period should be held in reserve to provide for the payment of the federal income taxes to become due after the amortization period.

We are, however, of the belief that the annual returns of the company should contain appropriate notations relating to the tax and income accounts so that the accounting procedure will be fully explained therein and we are providing in our order that "Acct. 551—Taxes Assignable to Electric Operations" and the amount shown as "Income Balance Transferable to Profit and Loss" be so noted.

It is therefore

[2, 3] *Ordered:* That Boston Edison Company be and it is hereby authorized and directed to account for the cost of emergency facilities which it, said Boston Edison Company, may elect to amortize pursuant to necessity certificates issued under the provisions of § 124A of the Internal Revenue Code and the federal income tax differences resulting from such amortization until further order or notice from the department, as follows:

(1) The company shall account for facilities in respect to which necessity certificates are issued in the same manner as other property of the company and shall accrue depreciation of such facilities on its books at normal rates.

(2) During the sixty-months' amortization period the company shall include under "Taxes Assignable to Electric Operations—Acct. 551" in an account entitled "Provision for Future Federal Income Taxes" an amount, or amounts, equal to the reduction in federal income taxes resulting from the amortization of emergency facilities

and that such amount shall be credited to an account entitled "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320."

(3) After the said sixty-months' amortization period, the company shall charge to "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320" and shall credit to "Portion of Current Federal Income Taxes Deferred in Prior Years" under "Taxes Assignable to Electric Operations—Acct. 551" an amount, or amounts, equal to the increase in the federal income taxes payable for that year resulting from the fact that normal depreciation cannot be deducted because of the previous amortization of the cost of the facilities pursuant to such necessity certificates.

(4) The company shall charge to "Reserve for Deferred Federal Income Taxes" under "Other Reserves—Acct. 320" and shall credit to "Portion of Current Federal Income Taxes Deferred in Prior Years" under "Taxes Assignable to Electric Operations—Acct. 551" an amount, or amounts, equal to any balance of "Reserve for Deferred Federal Income Taxes" as at December 31st of each year related to plant retired during said year which plant had been amortized under such necessity certificates.

(5) The company shall by statement duly verified report to this department with respect to each necessity certificate any pertinent data or calculations which may from time to time be requested by this department.

(6) The company shall in its annual return to this department insert appropriate footnotes to its Income Statement "Acct. 551—Taxes Assignable to Electric Operations" and to

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the amount reported as "Income Balance Transferable to Profit and Loss" in explanation of the deferred taxes resulting from said accelerated amortization, including the amount thereof.

INDIANA PUBLIC SERVICE COMMISSION

Re Lizton Telephone Company

No. 23318

January 28, 1954; rehearing denied March 19, 1954

INVESTIGATION by commission into telephone service of intrastate company; certificate revoked and territory declared open.

Monopoly and competition, § 41 — Basis for authorizing competition — Inadequate service.

1. The territory of a telephone company was declared open for the rendering of service by any qualifying company where the present certificate holder's service was so grossly inadequate that for long periods of time no service of any type was available, p. 141.

Certificates, § 152 — Revocation — Service inadequacy.

2. A telephone company's operating authority was revoked because of service inadequacies where the company refused to comply with commission orders directing necessary repairs and rehabilitation with the result that for long periods of time no service of any type was available, p. 141.

By the COMMISSION: By order approved on the 22nd day of October, 1953, pursuant to the provisions of the acts of 1913, Chap 76, § 60, page 167, Title 54-412, Public Service Commission Laws, Annotated, page 735, the Public Service Commission of Indiana, on its own motion, issued and served upon the Lizton Telephone Company, the respondent herein, a "citation order, citing the respondent to be and appear in the rooms of this commission, 401 State House, Indianapolis, Indiana, on the 30th day of November, 1953, at the hour of 10 A. M., C. S. T., and show cause, if any it may have why

its authority, franchise, license, permit or right to operate as a telephone utility in the territory now served by it should not be revoked."

Thereafter, pursuant to notice of hearing duly published as required by law, said cause was heard at 10 A. M., C. S. T., Monday, November 30, 1953, in the rooms of the commission, 401 State House, Indianapolis, Indiana.

[1, 2] The evidence shows and the commission finds that the Lizton Telephone Company, the respondent herein, is at present attempting to operate a telephone exchange in Lizton, Indiana, and the rural areas adjacent

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thereto; that said Lizton Telephone Company, the respondent herein, is a public utility and subject to the jurisdiction of the Public Service Commission of Indiana; that since the month of April, 1949, the patrons and subscribers have filed with this commission their several petitions and complaints alleging therein that the telephone service rendered by the Lizton Telephone Company, the respondent herein, was so grossly inadequate that for long periods of time service was denied to them causing great inconvenience and damage; that no attempt was made during that time to make repairs even of a temporary nature; that in the instant hearing the president of respondent testified that the Lizton Telephone Company was without funds and unable to obtain funds necessary to rehabilitate the telephone system to enable it to render reasonable telephone service; that he further testified that he knew nothing of the books, records, or accounts of the respondent and was unable to offer any evidence to indicate that the respondent intended to in the future arrange to correct the situation so that the patrons and subscribers would have a minimum of service, that the income was so small that respondent encountered difficulty in meeting the current expenses of operation.

The evidence further shows and the commission finds that the Lizton Telephone Company, the respondent herein, has refused to comply with the orders of this commission ordering and directing said respondent to make necessary repairs to relieve the long-suffering patrons and subscribers; that the respondent has refused to correct its lines after serious storms and per-

mitted poles, wires, and crossarms to remain on the ground; that the men presumed to act as repairmen for the respondent were unable to relieve the situation due to the failure of the respondent to provide the necessary materials and equipment.

The motion for a continuance of this cause made by counsel for respondent until such time as a rehabilitation program could be worked out, ruling on said motion was withheld at the time of the hearing until further action of the commission, said motion having been considered by the commission, is now overruled.

The commission, having considered all the evidence and being duly advised in the premises, is of the opinion and now finds:

That the Lizton Telephone Company, the respondent herein, is a public utility and subject to the jurisdiction of the Public Service Commission of Indiana.

That said Lizton Telephone Company, the respondent herein, has in the past and is now operating a telephone exchange in the town of Lizton, Hendricks county, Indiana, and the rural areas adjacent thereto.

That said Lizton Telephone Company, the respondent herein, has failed, refused, ignored, and disregarded and is at present failing, refusing, ignoring, and disregarding the orders of this commission ordering and directing the establishment of a program of rehabilitation of the telephone system so that reasonable adequate telephone service would be rendered.

That said Lizton Telephone Company, the respondent herein, is not rendering reasonable adequate telephone service to the patrons and subscribers

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out of its exchange or exchanges located in the town of Lizton, Indiana, and the area or territory in which the said respondent conducts its telephone operation.

That the territory comprising and constituted and described as the Lizton Telephone Company exchange now being served by said respondent herein, under authority, franchise, license, permit, or right ought to be declared "open" territory for the purpose of permitting another telephone company or corporation qualified in a financial way as well as experience to enter and render reasonable adequate telephone service to the present patrons and sub-

scribers and others who may desire in the future to install telephone service, therefore, the commission finds that the territory comprised, constituted, and described as the Lizton Telephone Company exchange should be declared "open" territory, and it so orders.

EDITOR'S NOTE.—Similar rulings were made by the Indiana commission in the following cases: Re Griffin Teleph. Corp. No. 23312, Jan. 28, 1954; Re Hymera Teleph. Co. No. 23313, Jan. 28, 1954; Re Mace Teleph. Co. No. 23316, Jan. 28, 1954; Re Greene County Teleph. Corp. No. 23317, Jan. 28, 1954.

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Town of Middleborough

v.

Brockton-Taunton Gas Company

D.P.U. 10371
January 22, 1954

PETITION by municipality for order directing gas company to continue supply of bulk gas at reasonable rates; granted with provision for surcharge.

Service, § 254 — Continuance of manufactured gas service — Conversion to natural gas.

1. The commission required a local company which had converted to natural gas to continue furnishing manufactured gas to a municipal plant, where the company was prohibited from furnishing natural gas to the municipality by the fact that a Federal Power Commission order, certifying a supplier for the area, included a prohibition against sales of natural gas for resale unless the distributor qualified as a natural gas company under the Natural Gas Act, and the local company was unwilling to qualify, p. 149.

Rates, § 376 — Manufactured gas service by natural gas company — Surcharge.

2. A gas company which, upon conversion to natural gas, was required to continue to furnish manufactured gas to a municipal plant was allowed to

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recover the resulting losses by adding a surcharge to the regular rates, where the company was unable to serve the municipality with natural gas because of a Federal Power Commission prohibition against serving utilities not qualified under the Natural Gas Act, and the company was not so qualified, p. 149.

Commissions, § 44 — Managerial matters — Gas company.

3. The commission may not compel a local natural gas company to qualify as a natural gas company under the Natural Gas Act, since that would constitute an interference with a management decision, p. 159.

APPEARANCES: Allan M. Hale, for board of selectmen, town of Middleborough; William R. Cook, for Brockton-Taunton Gas Company; Edward N. Gadsby, Counsel, for department.

By the DEPARTMENT: This is an application by the town of Middleborough for an order of the department under § 92A of Chap 164 of the General Laws requiring Brockton-Taunton Gas Company to supply it with gas in bulk at a reasonable price. A preliminary hearing on this petition was held on February 3, 1953, at which time it appeared that the then existing uncertainties regarding the supply of natural gas prevented a final determination. These uncertainties having in the meantime been resolved, further hearings were held on December 8 and 10, 1953. The situation placed before us is one which would be adequately complex under any normal circumstances but which has been turned into a tangled web by a situation which involves both federal and local regulatory jurisdiction.

Brockton-Taunton Gas Company (Brockton-Taunton) is the end product of a merger duly authorized by the department by order dated February 25, 1952, D.P.U. 9674, 94 PUR NS 8, of Brockton Gas Light Company (Brockton) and Taunton

Gas Light Company (Taunton). This merger was made effective on March 1, 1952. Brockton had theretofore served about 30,000 customers' meters in the city of Brockton and 18 neighboring towns. At the same time, Taunton was serving some 23,000 meters in Taunton, Attleboro, and 13 other towns. Taunton had theretofore completed a merger with Attleboro Gas Company, to which it had previously sold gas in bulk. In 1950, it was also supplying gas in bulk to North Attleboro Gas Company and to the Gas and Electric Department of the Town of Middleborough (Middleborough). At the time of the merger, Brockton was selling gas at wholesale to Plymouth Gas Company and to Norwood Gas Company. Middleborough, in turn, was supplying gas at retail to about 1,700 customers within the borders of that town. Its supply contract with Taunton was dated May 27, 1946, and was for a period of five years, a new contract to be negotiated at expiration. Gas has been furnished to the town since the expiration date at a price based on Brockton-Taunton's costs for 1952, in accordance with a letter dated March 12, 1953, to which Middleborough apparently agreed. It was stated in this letter that such price would apply "until further notice but not beyond December 31, 1953."

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In May, 1950, long prior to the merger proceedings, Taunton testified at a hearing before the Federal Power Commission that it was furnishing gas to Middleborough, that its estimates of its requirements for natural gas included such supply, and that it contemplated continuing so to do. About 40 per cent of Taunton's total output was then being sold at wholesale to its various bulk customers. Taunton realized at that time that such situation might subject it to the jurisdiction of the Federal Power Commission, but the importance of the resale load to it compelled it to assume the risk of such eventuality. Brockton also appeared in such proceedings and testified that it did not intend to continue resale of gas when natural gas was available to it. As the result of the hearings in connection with which such testimony was introduced, Federal Power Commission issued its certificate in Opinion No. 206 dated February 26, 1951, 10 FPC 35, 57, under the Natural Gas Act which authorized Algonquin Gas Transmission Company to supply Taunton with natural gas. Brockton's then bulk customers appeared separately in the proceedings and were separately authorized by the Federal Power Commission to be furnished with natural gas by Algonquin. *No restriction was contained in F.P.C. Order No. 206 limiting the right of Algonquin to furnish gas to Taunton based upon the proposed resale by Taunton to Middleborough.* However, an appeal was taken from such action of the Federal Power Commission by opposing interests and on April 22, 1952, the circuit court of appeals for the third circuit set it aside.

Northeastern Gas Transmission Co. v. Federal Power Commission (CA3d 1952) 95 PUR NS 422, 195 F2d 872. Certiorari was thereafter denied by the United States Supreme Court (1952) 344 US 818, 97 L ed 637, 73 S Ct 31. In the meantime, the above-described merger of Brockton and Taunton had been consummated. Following the mandate of the circuit court, the Federal Power Commission commenced new hearings on the question of certifying a supplier to this territory, and hearings were held in connection therewith beginning about December of 1952.

At this rehearing, Brockton-Taunton stated unequivocally that it did not intend to resell natural gas to Middleborough. No amount of gas for resale was included in its estimates of its future requirements. By this time Middleborough was the only putative wholesale customer of the merged company. Counsel for the Federal Power Commission was so informed prior to the hearing, and told Brockton-Taunton that it could, without coming under the Natural Gas Act, continue to serve Middleborough on a temporary basis after the advent of natural gas until Middleborough could make other arrangements. Middleborough was kept fully informed as to the changed position of its supplier and as to the developments in this connection as they occurred. On March 26, 1951, Middleborough was told that negotiations were pending for a merger between Taunton and Brockton, and that Brockton did not intend to continue to resell to Middleborough if the merger went through. The merger agreement was signed in June, 1951, and another conference with the

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town officials was held on October 8, 1951, at which time it was suggested that Middleborough either arrange for its own supply of gas or sell its distribution system to the merged company.

In April, 1952, Middleborough was warned in writing that upon the introduction of natural gas, "It may be impracticable, if not impossible, to supply you with gas," since Brockton-Taunton had no intention of submitting to the jurisdiction of the Federal Power Commission. It was pointed out that the customers' conversion cost plus standby equipment and pipeline costs would run to as much as \$180,000, if Middleborough were to take natural gas direct from Algonquin. Brockton-Taunton offered in June, 1952, to solve this problem by purchasing the municipal plant of Middleborough for \$50,000. This plant was then carried on the books of the town at a depreciated cost of about \$111,000. It included no production plant of any kind. In June, 1952, a conference was held between Brockton-Taunton, Algonquin, and the department to ascertain if Algonquin would voluntarily supply Middleborough with natural gas directly, at which time Algonquin refused to make any commitment and indicated that, unless the project proved to be economically feasible, which it doubted, it would not do so. Middleborough knew of the situation it was facing in April, 1952, when it wrote to the Federal Power Commission in an attempt to persuade that body to compel Algonquin to supply it direct with natural gas. Nevertheless, the town has never filed any of the necessary papers in a formal application with the Federal Power

Commission to compel Algonquin so to supply it. On June 19, 1952, Brockton-Taunton's representatives met with the selectmen of Middleborough and an advisory board which had been organized to work with the municipal utility administration. It was again stated by Brockton-Taunton at this meeting that it did not intend to supply the town with natural gas on a permanent basis. In September, 1952, Brockton-Taunton increased to \$100,000 plus certain adjustments its offer to purchase Middleborough's distributing plant, which amount represented substantially the net book value of such property. No reply was ever received to the verbal offer so made at that time. There was then pending before the United States Congress the so-called Hinshaw bill (H.R. 5976) which, had it been enacted, would have avoided any questions as to the resale of natural gas by Brockton-Taunton to Middleborough. This bill had the official approval of the Federal Power Commission and, at the end of the session, had been enacted by the House and is now pending before the Senate.

On December 8, 1952, the town of Middleborough filed this petition under § 92A of Gen Laws, Chap 164. In such petition, the town admitted that the Brockton-Taunton Company had indicated that it did not intend to supply the town with natural gas. At the hearing on this petition on February 3, 1953, as stated, the situation was outlined to the department and, since there was no way of telling how the pending proceedings before the Federal Power Commission would come out, and since Brockton-Taunton assured the department that the sup-

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ply of gas to Middleborough would not be terminated without reasonable notice, the hearing was adjourned sine die.

This entire matter was permitted to remain in this rather confused situation until August 6, 1953, when for the second time the Federal Power Commission certified Algonquin as the supplier of natural gas to this area. However, to the consternation of all parties the Federal Power Commission included in its order a specific provision that Algonquin was not to sell any natural gas to Brockton-Taunton for resale unless its purchaser were qualified as a natural gas company under the Natural Gas Act. This provision was, as has been pointed out, without precedent, was contrary to the assurances that counsel for the Federal Power Commission had given, and was directly contrary to the evidence which Brockton-Taunton had adduced before that body. The testimony is clear that Brockton-Taunton at no time included any of Middleborough's requirements in its estimates, and that the furthest it ever went was to say that the people of Middleborough would not be shut off from gas service by the immediate act of Brockton-Taunton.

In the meantime, on July 29, 1953, Middleborough was definitively advised by Algonquin that its studies indicated that the expenditures required to furnish gas to Middleborough would not be justified, and, inferentially, that such extension would not be made, at least voluntarily.

On August 10, 1953, when it knew that Algonquin had been issued a certificate, but before the Brockton-

Taunton Company had become aware of the peculiar limitations applicable to its service by the Federal Power Commission opinion of August 6th, it notified Middleborough of the necessity for conversion of customers' appliances in the latter territory, again stressing its intention that such supply was to be on a temporary basis. The town had spent in the previous year about \$11,000 in preliminary work of this nature. Such amount is not wasted, however, since such conversion must eventually be completed, whether Middleborough is eventually served with natural gas or propane gas. There was no substantial additional amount spent by Middleborough as the result of the letter of August 10th.

On August 13, 1953, Brockton-Taunton submitted its purchase offer in writing, as requested by Middleborough, and on August 19, 1953, Middleborough advised Brockton-Taunton that it would not sell its plant, and that: "The construction of a propane-air plant with two storage tanks was authorized and action has already been taken to have the plant built." It clearly appears, however, that Middleborough actually took only the most preliminary of steps in this regard, and still has no propane-air plant available, under construction or, for that matter, authorized by the necessary vote of the town. Middleborough did retain an engineering firm to design a peak-shaving propane plant, which would not be suitable for full supply, and did not until September, 1953, instruct this firm to change the design so as to meet the town's full load requirements. In the exercise of reasonable diligence a propane-air

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plant adequate to serve Middleborough can be designed and constructed so as to be put into full operation within three months time. The necessary materials have been available to Middleborough since prior to August, 1953.

On August 28, 1953, Middleborough again called the attention of the Federal Power Commission to its predicament, to which letter the Federal Power Commission replied that it had no power to compel Brockton-Taunton to sell gas to Middleborough, and indicated that an application for an order under § 7(a) of the Natural Gas Act, 15 USCA § 717f (a), compelling Algonquin to serve the town "would receive appropriate consideration." In the meantime, Algonquin was refusing to furnish Brockton-Taunton with any natural gas until the latter company either qualified under the Natural Gas Act or agreed not to resell to Middleborough. In the face of this dilemma, and since Brockton-Taunton was naturally unwilling to refuse to make available to its other 52,000 customers whatever benefits they might derive from the new fuel, Brockton-Taunton decided to isolate Middleborough from the rest of its system, so far as possible, and advised Algonquin on September 2, 1953, that it was in position to receive deliveries. On September 21, 1953, it filed a similar commitment with the Federal Power Commission, and a supply of natural gas was made available to it by Algonquin at once. Ever since that time, Brockton-Taunton has been supplying all of its customers with straight natural gas at 1,000 Btu, except Middleborough, and about 600 other customers who could not be

valved off from the Middleborough supply line. To supply these latter customers with gas, Brockton-Taunton has been forced to continue the manufacture of water gas at 528 Btu. As soon after the introduction of natural gas as possible, Brockton-Taunton filed new schedules of rates for gas to its customers (except Middleborough) which are now effective and which represent a saving to the consuming public in this area of about \$244,893 a year.

It may be added that such final step was not taken without full disclosure to the Federal Power Commission of the effect which their ruling was going to have on the economy of the area. Such explanations met with no response except the repeated suggestion that Brockton-Taunton qualify as a natural gas company. To do so would involve Brockton-Taunton in substantial and continuing accounting and legal expense to which it was unwilling to submit. The solution actually adopted was the only reasonable alternative to a denial of gas to the public in the town of Middleborough, and was adopted with the knowledge of the department.

The manufacture of gas for the sole use of Middleborough (and Brockton-Taunton's associated customers) is an uneconomic process which involves Brockton-Taunton in extra expense of \$8,387 a month. Under its new general rates, Brockton-Taunton does not realize sufficient earnings to enable it to absorb this extra expense without seriously jeopardizing its financial position, even if the equities of compelling it to do so were far clearer than they are. The net loss to Brockton-Taunton, after crediting revenues

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under its previous rates to Middleborough, is \$4,579 a month. Accordingly, on October 5, 1953, Brockton-Taunton informed Middleborough that it was willing to continue to furnish gas to the town only at a monthly surcharge of \$1,500 in November and December, \$2,500 in January, \$3,500 in February, \$4,000 in March, and \$5,000 in April. This proposition was refused by the town on October 29, 1953. To make its position legally tenable in view of the provisions of Gen Laws, Chap 164, § 125A, Brockton-Taunton withdrew such proposal on December 3, 1953, and advised Middleborough that it would not continue to serve it with gas after December 31, 1953. In a previous interim order of this department in these proceedings, entered December 23, 1953, Brockton-Taunton was ordered to continue the supply of gas to Middleborough on and after January 1, 1954, at a price to be fixed by the department.

[1-3] Section 92A of Gen Laws, Chap 164, under which these proceedings are brought, authorizes us to order Brockton-Taunton to furnish gas to Middleborough. This we have already done, and such direction will be continued so long as the people of Middleborough need our protection. Such order may direct the gas to be furnished on "such terms and conditions as are legal and reasonable;" However, the section further states that "such order shall not be made where it appears that compliance therewith would result in permanent financial loss" to the company. It seems clear to us that Brockton-Taunton's other customers should not be required to support the losses at-

tributable to supplying Middleborough with gas. Neither are Brockton-Taunton's earnings of such generous proportions that its stockholders should be penalized, if such a concept were not subject to other serious criticism. We cannot compel Brockton-Taunton to take steps to qualify as a natural gas company, since we feel this would be an indefensible interference with a management decision, even if we were convinced, which we are not, that such action would be less expensive than the company's present method of handling the situation. It is unnecessary for us here to assess any blame on either party for the present situation. We are inclined to feel that Brockton-Taunton did not make its position entirely clear, and that its purchase offer, at least at first, was not made in complete good faith. On the other hand, Middleborough has been something less than diligent, and it certainly is not justified in asking Brockton-Taunton to sustain these losses while Congress deliberates over the Hinshaw bill. It seems clear to us that Middleborough must assume the burden of the extra expense involved, and that the terms and conditions under which this gas is furnished by Brockton-Taunton, as suggested in its letter of October 5, 1953, contemplate a purchase price which is no more than is legal and reasonable, at least until April, 1954. However, we think that the present record requires us to place a maximum of \$4,500 on such surcharge.

Brockton-Taunton filed seven requests for rulings of law. We grant all of its said requests.

For the foregoing reasons, after pub-

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

lic hearing, investigation, and consideration, it is hereby

Ordered: That Brockton-Taunton Gas Company continue to furnish a supply of gas to the Gas and Electric Department of the Town of Middleborough adequate in amount and quality for distribution to retail customers of said Gas and Electric Department until otherwise directed by said Gas and Electric Department or by order of the department; and it is further

Ordered: That the rates charged by Brockton-Taunton Gas Company to the said Gas and Electric Department shall, until further order of the

department, be the rates and charges specified in the contract of May 27, 1946, between the parties as modified by letter signed by Brockton-Taunton Gas Company dated March 12, 1953, plus a monthly surcharge as follows:

January, 1954	\$2,500
February, 1954	\$3,500
March, 1954	\$4,000
April, 1954, and thereafter	\$4,500

and it is *further*

Ordered: That the proceedings in D.P.U. 10371 be and the same hereby are terminated and closed.

UNITED STATES COURT OF APPEALS, DISTRICT OF
COLUMBIA CIRCUIT

Niagara Mohawk Power Corporation

v.

Federal Power Commission

No. 11668

— US App DC —, 209 F2d 814
January 21, 1954

PETITION to review order of Federal Power Commission denying approval of proposed amortization of amount paid by licensee to industrial company to terminate unprofitable contracts; order affirmed. For commission decision, see (1952) 95 PUR NS 181.

Accounting, § 6.1 — Burden of proof — Federal Power Act.

1. A power company, holding a license under the Federal Power Act and seeking to justify the amortization of a payment to an industrial company to terminate unprofitable contracts for the sale of mechanical power, has the burden to justify the amortization when it is questioned by the commission, p. 153.

Appeal and review, § 28.2 — Conclusiveness of decision — Federal Power Commission — Accounting.

2. A ruling by the Federal Power Commission as to the accounting for an
- 2 PUR 3d

NIAGARA MOHAWK POWER CORP. v. F. P. C.

amount paid by a water-power licensee for termination of unprofitable contracts, clearly within the commission's authority under § 4(a) of the Federal Power Act, 16 USCA § 797(a), to regulate the company's accounts for the purposes of § 10(d), 16 USCA § 803(d), must be sustained unless the court finds that the record, considered as a whole, does not show a substantial basis for the commission's action, p. 153.

Accounting, § 6.1 — Burden of proof — Amortization of cancellation cost — Federal Power Act.

3. A power company holding a license under the Federal Power Act, in order to justify its proposal to amortize through annual charges to operating expense an amount paid to an industrial company to terminate unprofitable contracts for the sale of mechanical power, must affirmatively show that the payment was necessary to obtain cancellation of the contract and a subsequent increase in its own earnings following cancellation, p. 153.

Accounting, § 12.1 — Cost of terminating contract — Amortization.

4. A power company holding a license under the Federal Power Act failed to justify its proposal to amortize the cost of terminating unprofitable contracts for the sale of mechanical power to an industrial company, so that the cancellation cost might be charged annually to operating expense, where the evidence indicated that the industrial company might have welcomed gratuitous cancellation, the power company might have obtained an increase in the rate paid for mechanical power, this rate was discriminatorily low, and the power company did not apply to the Federal Power Commission for relief, p. 153.

APPEARANCES: Lauman Martin, New York city, for appellant; Howard E. Wahrenbrock, Assistant General Counsel, Federal Power Commission, Washington, D. C., with whom Theodore French, Attorney, Federal Power Commission, Washington, D. C., was on the brief, for appellee. Bradford Ross, General Counsel, Federal Power Commission, Washington, D. C., at time brief was filed, also was on the brief for appellee.

Before Wilbur K. Miller, Prettyman, and Washington, CJJ.

WILBUR K. MILLER, CJ.: For many years before and after it became the licensee of Project 16 at Niagara Falls, under the Federal Power Act, 16 USCA § 791a et seq., Niagara Falls Power Company was obligated to furnish to the Aluminum Company

of America mechanical power which the latter used in generating direct current electricity to operate an aluminum reduction plant. The obligation arose from a series of five contracts entered into by the two companies or their predecessors, beginning in 1895, under which Alcoa constructed its reduction plant on a near-by nonproject site leased from a predecessor of Niagara Falls Power Company. The contractual arrangement, which was increased in 1922 to provide for annual deliveries of 52,000 mechanical horsepower, was to endure until May 1, 1967.

Under the contracts, Alcoa paid for the mechanical power at the annual rate of \$8 per mhp, which is the equivalent of \$11.50 per kilowatt per year, or about one and one-third mills per kwh. As the electric customers of

UNITED STATES COURT OF APPEALS

the power company were paying three mills per kwh for energy supplied to them, and as their demand was constantly increasing, the Niagara Falls Company desired to escape from its contractual obligation so as to devote to its own purposes the mechanical power being furnished to Alcoa, and thereby to realize greater revenue therefrom.

Negotiations to that end, begun by Niagara Falls Power Company in 1946, culminated in a contract dated March 7, 1947. It was agreed that the existing arrangement should be canceled as of March 1, 1949, upon payment of the sum of \$1,500,000 to Alcoa by the power company. When that day arrived, closing contracts were executed and the money was paid in accordance with the agreement.¹

Thereafter, the power company attached its own 60-cycle alternating current generators at a cost of about \$2,500,000, and began to supply energy therefrom to its electric customers. These sales produced annual revenue of about \$1,059,000 as against \$416,000 which had been received from Alcoa for the mechanical power. Thus, through expenditures aggregating about \$4,000,000, the Niagara Falls Power Company obtained an increase of approximately \$643,000 in annual revenues.

Before the cancellation agreement became effective, Niagara Falls Power Company submitted the proposed arrangement to the Treasury Department, and on December 9, 1948, the Commissioner of Internal Revenue entered into a "closing agreement"

with the power company which defined the payment of \$1,500,000 to Alcoa as "a capital expenditure which will be subject to deductions for amortization over the unexpired period of the old leases, beginning March 1, 1949."

After the cancellation had become effective, the power company filed with the public service commission of New York, which has regulatory authority over its electric rates, a petition for permission to amortize through operating expense accounts, during the unexpired period of the canceled contracts, the sum of \$1,500,000 which it had paid to Alcoa and which it then held in its Account 146. The public service commission authorized such amortization by an order entered November 14, 1949.

On January 20, 1950, the Niagara Falls Power Company filed a petition with the Federal Power Commission setting forth the facts which we have summarized above, and requesting the commission to authorize it ". . . for all accounting requirements subject to the jurisdiction of the commission under the Federal Power Act to amortize the above-described expenditure of \$1,500,000 over the period March 1, 1949—May 1, 1967 by ratable monthly charges to operating expenses."

Hearings were held in March and April, 1951, and the trial examiner filed his decision April 10, 1952. He found that Niagara Mohawk Power Corporation² had failed to show the proposed amortization to be reasonable or appropriate for use in the de-

¹ The sum of \$1,500,000 so paid was held by Niagara Falls Power Company in its Account 146, "Other Deferred Debits."

² Through a consolidation of corporations

in October, 1950, the Niagara Falls Power Company was succeeded as licensee by Niagara Mohawk Power Corporation, the present petitioner.

NIAGARA MOHAWK POWER CORP. v. F. P. C.

termination of future additions to amortization reserves established and maintained pursuant to § 10(d) of the Federal Power Act, 16 USCA § 803 (d), which is quoted at length herein-after; and that it had not proved necessity for the payment to Alcoa. The trial examiner concluded the expenditure is not an operating cost applicable to future periods but is a loss voluntarily incurred by Niagara Falls Power Company under the Alcoa contracts; that the proper accounting treatment of the expenditure under the Federal Power Act is the immediate charge-off to Account 271, "Earned Surplus." He also concluded that the expenditure of \$1,500,000 should not be considered in determining the portion of the licensee's earnings to be transferred to the amortization reserves required by § 10(d) of the act.

Niagara Mohawk seeks review of the following order, entered October 3, 1952, by the Federal Power Commission, 95 PUR NS 181, 188, which adopted the trial examiner's views:

"(A) The application, filed on January 20, 1950, by The Niagara Falls Power Company (Niagara Mohawk Power Corporation, successor licensee) for an order approving the amortization by ratable monthly charges to operating expense of the amount of \$1,500,000, which it paid to the Aluminum Company of America with respect to agreements dated March 7, 1947, and March 1, 1949, is hereby denied.

"(B) Petitioner shall charge off the expenditure referred to in Paragraph (A) to Account 271, Earned Surplus.

"(C) The charge to Account 271, Earned Surplus, ordered in Paragraph

(B) above shall not be considered in computing the surplus earned in excess of a specified reasonable rate of return for the purpose of establishing and maintaining amortization reserves under the provisions of § 10(d) of the Federal Power Act, 16 USCA § 803 (d)."

[1-4] Section 301(a) of the Federal Power Act, 16 USCA § 825(a), requires every water-power licensee and every public utility to make, keep, and preserve such accounts, records, and memoranda as the Federal Power Commission may by rules and regulations prescribe as necessary or appropriate in the administration of the act. The section authorizes the commission to prescribe a system of accounts to be kept by licensees and public utilities, and includes the following:

" . . . The commission, after notice and opportunity for hearing, may determine by order the accounts in which particular outlays and receipts shall be entered, charged, or credited. The burden of proof to justify every accounting entry questioned by the commission shall be on the person making, authorizing, or requiring such entry,"

It was therefore the burden of Niagara Mohawk to justify the amortization of the Alcoa payment when it was questioned by the commission. The justification offered is that, through the questioned expenditure and the installation of its own generators, the petitioner not only largely increased its earnings but also made available for general distribution 53,000,000 kwh per annum—additional energy which was sorely needed. So, Niagara Mohawk contends the commission's order is an unwarranted interference

UNITED STATES COURT OF APPEALS

with its management of its own business.

But the commission has not interfered with management. Despite the order complained of here, the additional energy continues to flow to the petitioner's electric customers, and it continues to enjoy the enlarged revenue thereby produced. It still has the right, granted by the New York commission, to amortize the Alcoa payment for electric rate-making purposes; and, under the Treasury ruling, for the computation of federal income taxes. The main impact of the commission's order is for the purposes of § 10(d) of the act,³ which reads as follows:

"(d) That after the first twenty years of operation, out of surplus earned thereafter, if any, accumulated in excess of a specified reasonable rate of return upon the net investment of a licensee in any project or projects under license, the licensee shall establish and maintain amortization reserves, which reserves shall, in the discretion of the commission, be held until the termination of the license or be applied from time to time in reduction of the net investment. Such specified rate of return and the proportion of such surplus earnings to be paid into and held in such reserves shall be set forth in the license."

Petitioner's license requires that, after the first twenty years of operation, one-half of surplus earned in excess of an annual return of 6 per cent on net investment shall be held in the amortization reserves established

and maintained as provided in § 10(d) for the purposes therein set forth. Thus the commission's refusal to recognize the Alcoa payment as an operating expense, or as a charge to surplus for the purposes of § 10(d), serves to increase by \$750,000 the petitioner's amortization reserves, which will ultimately be applied to reduce the net investment the United States must pay should it elect to acquire the property at the termination of the project, as permitted by § 14 of the act.

This ruling, clearly within the commission's authority under § 4(a) to regulate petitioner's accounts for the purposes of § 10(d), must be sustained unless we find that the record, considered as a whole, does not show a substantial basis for the commission's action. *Universal Camera Corp. v. National Labor Relations Board* (1951) 340 US 474, 487-489, 95 L ed 456, 71 S Ct 456. Certainly its ruling cannot be sustained if the commission acted without supporting proof and in the face of adequate and undisputed contrary evidence. The question, then, is whether the petitioner carried the burden of justifying its proposal to amortize the cancellation cost through annual charges to operating expense. To sustain that burden, we think it was incumbent on the petitioner affirmatively to show the payment to Alcoa was necessary to obtain cancellation of the contracts and the subsequent increase in its own earnings. It signally failed to do so. There was evidence tending to show Alcoa's reduction plant at Niagara

³ If the power developed by the licensee, or any part thereof, should ever enter into interstate or foreign commerce in circumstances such that the Federal Power Commission would have regulatory authority over the rates charged therefor under § 20 of the

act, the order now under consideration would have impact on such rates because it operates to reduce the licensee's net investment required by § 20 to be used as the rate base in regulation by the commission.

NIAGARA MOHAWK POWER CORP. v. F. P. C.

Falls was antiquated in comparison with its other plants and was operated at relatively high cost despite the cheap mechanical power; and in 1946 and 1947, because of the cessation of hostilities, the future demand for aluminum was not too bright. Such evidence at least indicates that, in those years, Alcoa might well have welcomed gratuitous cancellation, as it could demand termination of its lease and power contracts only by paying a penalty of \$1,921,500. Yet, in those circumstances, petitioner paid Alcoa \$1,500,000 to obtain cancellation.

The petitioner's main objective was to increase its own revenues. Its president testified that if, through regulatory action, the Niagara Falls Power Company could have obtained an increase in the rate paid by Alcoa for mechanical power so as thereby to obtain as much additional revenue as it obtained through its new electrical installations, the payment to Alcoa for cancellation probably would

not have been made. He also admitted that Alcoa's rate of \$8 per mhp was discriminatorily low. Yet the power company did not apply to the Federal Power Commission⁴ for relief from the low rate before paying the sum of \$1,500,000 to escape from it.

We cannot say, of course, that the Federal Power Commission would have increased the mechanical power rate to an equivalent of the 3-mill electric rate had the power company petitioned it for an increase therein. But certainly such a petition would have been entertained and, in view of what seems plainly to have been a discriminatory situation, it is highly probable that some relief would have been granted.

It is our view that Niagara Mohawk failed to justify its proposed accounting treatment of the Alcoa payment. Accordingly we do not reach the other arguments advanced by the commission.

Affirmed.

⁴ Under § 19 of the act, the Federal Power Commission clearly had regulatory authority over the rate for mechanical power sold to Alcoa, since New York had not extended such

authority to its public service commission. *Aluminum Co. of America v. Maltbie* (1942) 289 NY 357, 48 PUR NS 125, 45 NE2d 908.

INDIANA PUBLIC SERVICE COMMISSION

INDIANA PUBLIC SERVICE COMMISSION

Clarence Haag et al.

v.

General Telephone Company of Ohio

No. 24273

January 7, 1954

COMPLAINT *against quality of service furnished by telephone company proposing to increase rates; rate increase denied.*

Discrimination, § 161 — Telephone rates — Dial and nondial service.

It is unreasonably and unlawfully discriminatory for a telephone company to charge the same rates for manually operated magneto service in one exchange as it charges for modern automatic dial service in a neighboring exchange.

APPEARANCES: Clayton Bond, Attorney at Law, Liberty, for petitioners; Stuart, Devol, Branigin & Ricks, Attorneys at Law, by Roger Branigin, and John Robert Jones, Attorney at Law, Columbus, Ohio, for respondent; William Turner, Assistant Public Counselor, Indianapolis, for the public.

By the COMMISSION—Buchanan, Chairman: On June 17, 1953, Clarence Haag et al. filed a petition with the Public Service Commission of Indiana (hereinafter sometimes referred to as "the commission") alleging unsatisfactory service by General Telephone Company of Ohio to the patrons of said company's College Corner, Indiana exchange, and requesting that the new schedule of rates proposed for said exchange be held in abatement until such time as the General Telephone Company of Ohio, respondent herein, shall be capable of rendering and shall render adequate and satis-

factory telephone service to the patrons of said College Corner exchange in the state of Indiana.

Pursuant to an investigation conducted by the engineering department of the commission, the matter herein was set for hearing by the commission by the publication of notice thereof in the Liberty Herald and College Corner News; The Lafayette Leader and Lafayette Journal and Courier; newspapers printed and published in the English language and of general circulation in Union and Tippecanoe counties, respectively, public hearing was held in the Union Circuit Court Room, Union county, Indiana, at 10 o'clock A.M., Wednesday, October 28, 1953, with appearances as above set out.

The evidence shows and the commission finds that in February, 1953, respondent General Telephone Company of Ohio, Inc., proposed to increase its exchange rates for serv-

HAAG v. GENERAL TELEPH. CO.

ice to its subscribers of the Oxford, Ohio, and College Corner, Indiana exchanges, which rates had already been approved by the Public Utilities Commission of Ohio by order No. 4, to be effective on and after February 21, 1953, which said rates were withheld at that time because of the filing of the aforesaid petition by subscribers of the College Corner exchange, alleging inadequate and unsatisfactory telephone service.

The evidence further shows and the commission finds that in certain communities in the exchange area covered by the College Corner exchange the service is unsatisfactory although respondent has rehabilitated the greater portion of its outside plant but the switchboard at that exchange is the magneto type manual system with antique wall telephone instruments.

The evidence further shows and the commission finds that the principal complaint of the College Corner subscribers is that respondent proposes to charge them the same rates for manual magneto service as charged the subscribers served by the Oxford, Ohio, exchange, which renders modern automatic dial service; that the College Corner exchange serves 641 subscribers, of which fully two-thirds reside in Indiana; that for the magneto service rendered from College Corner the rates are higher than the business and residential rates charged by respondent for magneto service in groups of 500 to 1,000 stations and that the College Corner rates are *now higher* than the rates of the respondent's Liberty exchange rates within only 8 miles of College Corner, those said rates being as follows:

	College Corner Rates	Liberty, Indiana, Rates
1-party residence	\$4.75	\$4.45
4-party residence	3.75	3.45
Multiparty or Rural residence	3.75	3.45

And said Liberty rates are for common battery service and the fact is the rate structure of respondent Ohio company differs substantially from that of General Telephone Company of Indiana, Inc., in that the Ohio company draws no line of distinction between common battery (manual or dial) and magneto service; the Ohio company established rates in "Rate Bands" solely on the basis of the number of stations involved at each of its exchanges, so that the subscriber in a magneto exchange pays the same rate as a subscriber who enjoys automatic dial service in the same size exchange.

The commission, having considered the evidence of record herein, the rates charged for telephone service by respondent at its Oxford, Ohio, College Corner and Liberty, Indiana, exchanges, respectively, finds:

1. The telephone rates proposed to be charged at the College Corner, Indiana, exchange, by the General Telephone Company of Ohio, respondent, herein, based upon the magneto service rendered at the said exchange in comparison to the rates charged at the near-by point of respondent's Liberty, Indiana, exchange, rendering common battery service at lower rates for residential customers and very slightly higher rates for business service than the rates charged at College Corner and, furthermore, the rates proposed for College Corner subscribers *are the same as the rates charged by respondent at its Oxford, Ohio, exchange,*

INDIANA PUBLIC SERVICE COMMISSION

within only 6 miles of College Corner, for modern automatic dial service, rendering a higher grade of service than that being rendered at the College Corner magneto exchange.

2. By virtue of the aforesaid practices, charges, and service it is apparent that *until the service rendered by the College Corner exchange is brought up to a par with that rendered in the near-by exchanges including the Liberty, Indiana, exchange, of respondent by and through the replacement of the manually operated magneto equipment with automatic dial operated switchboard and auxiliary equipment and facilities, the proposed*

rates for College Corner subscribers would constitute an unjust, unreasonable, and unlawful discrimination as well as creating a condition that would effect unreasonable preference to certain persons, firms, and/or corporations within the same region, or territory—all of which is declared to be unlawful under the statutes of the state of Indiana.

3. Therefore, the commission concludes that respondent's request to make the proposed rates effective at the College Corner exchange should be denied in the public interest and it will be so ordered.

ARIZONA SUPREME COURT

Rubenstein Construction Company

v.

Salt River Project Agricultural Improvement & Power District

No. 5790

— Ariz —, 265 P2d 455

December 21, 1953

APPEAL by contractor from judgment upholding power district's connection charges; affirmed.

Public utilities, § 56 — Municipal districts — Sale of electric energy — Connection charges.

An agricultural improvement and power district engaged in the sale of electrical energy is not a public service corporation and, therefore, is not prohibited from making connection charges for electricity.

RUBENSTEIN CONSTRUCTION CO. v. SALT RIVER PROJECT

APPEARANCES: James E. Flynn and Allan K. Perry, Phoenix, for appellant; Jennings, Strouss, Salmon & Trask, and J. A. Riggins, Jr., Phoenix, for appellee.

STANFORD, CJ.: Rubenstein Construction Company, a corporation (plaintiff-appellant), during the years 1951, 1952, constructed 500 dwelling units at Williams Air Force Base. Each unit was and is served by the Salt River Project Agricultural Improvement and Power District, a corporation (defendant-appellee), with electrical energy for lighting, etc. As a condition precedent to such service, defendant demanded from plaintiff a connection charge of \$25 per unit, which was paid. The parties will be referred to as they appeared in the lower court.

Plaintiff by this action sought the return of the payments it had made for these connection charges, claiming the same had been illegally exacted. It alleges such a service charge is prohibited by § 76-109, A.C.A. 1939, which reads as follows:

"Regulation of utility rates—Minimum.—It shall be unlawful for any person to sell water, electric energy, or gas, used or to be used for commercial or domestic purposes, except by meter measurement if the consumer shall request the same; or to charge and collect for a greater amount than actually furnished during the period for which the charge was made; but an allowance of not exceeding 3 per cent may be made for inaccuracy in meter measurement. The corporation commission may permit a minimum charge, not exceeding one dollar per month. *No charge shall be made by*

any public service corporation for making connection for water, gas, electricity for lighting, or telephones. Any public service corporation demanding and receiving a deposit of money from any consumer shall pay to such consumer 8 per cent interest per annum thereon. The inspector and sealers shall be under the direction of the corporation commission in all matters pertaining to meter inspection." (Emphasis supplied.)

Defendant answered, alleging itself to be a political subdivision and municipal corporation of the state of Arizona within the meaning of § 7, Art 13, of the Constitution of Arizona, and thereby entitled to all the privileges and immunities granted such political subdivisions.

The defendant, after the issues were joined, filed a motion for summary judgment, accompanied by an affidavit of its secretary stating its corporate status to be that alleged in its answer, and stating that it is an agricultural improvement district duly organized and existing under and by virtue of Chap 75, Art 7, A.C.A. 1939. Defendant's motion for summary judgment was predicated upon the theory that the provisions of § 76-109, *supra*, had no application to it in its capacity as a municipal corporation. The trial court granted the motion and judgment was entered accordingly, from which this appeal is prosecuted.

The sole assignment of error is:

"The court erred in granting appellee's motion for summary judgment and in rendering judgment in favor of the appellee, because appellee, although organized as an agricultural improvement district, is a 'public service cor-

ARIZONA SUPREME COURT

poration' within the meaning and intent of § 76-109 of the Code."

Actually, the three propositions of law advanced in support of this assignment raise but one basic question: Is the defendant company when engaged in the sale of electrical energy a "public service corporation" within the meaning of that term as used in our statutes, or is it a "municipal corporation"?

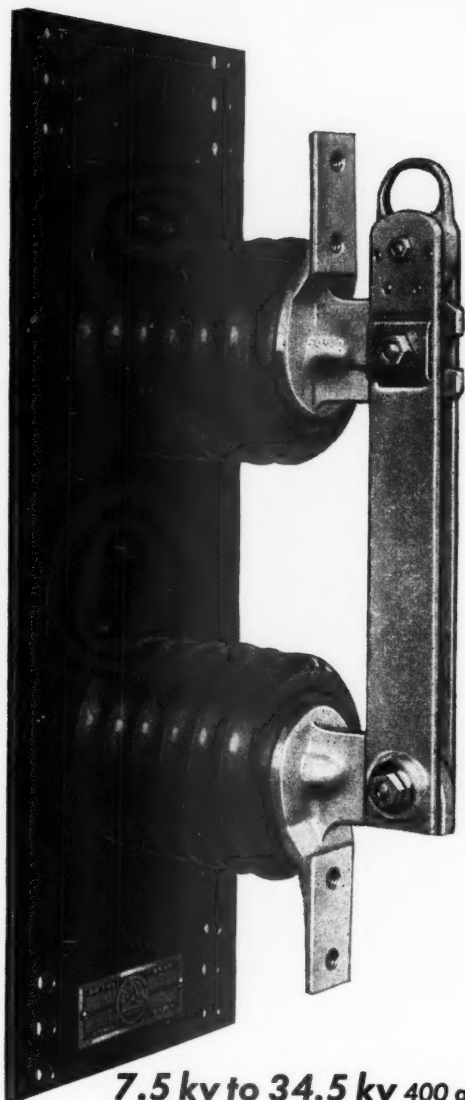
In effect plaintiff contends without citing any pertinent authorities that when municipal corporations engage in "proprietary functions" they thereby lose their "municipal" status and become "public service corporations." We reject this contention. There can be no such metamorphosis. The defendant here is either at all times a political subdivision of the state, or it never is. True, it is a municipal corporation of a peculiar type, see *Day v. Buckeye Water Conservation & Drainage Dist.* (1925) 28 Ariz 466, 237 Pac 636; *Maricopa County Municipal Water Conservation Dist. No. 1 v. La Prade* (1935) 45 Ariz 61, 40 P2d

94, 100. It is well established in this jurisdiction that municipal corporations may engage in the occupations referred to in § 2 of Art 15 of the Constitution of Arizona, and that while thus acting they are not "public service corporations" within the meaning of the Constitution, see *Phoenix v. Wright* (1938) 52 Ariz 227, 25 PUR NS 134, 80 P2d 390, and cases therein cited.

We hold that defendant corporation by virtue of the provisions of § 7, Art 13, which was incorporated within the Constitution of Arizona in 1940, is not a public service corporation, and consequently § 76-109, *supra*, has no application to the facts of this case. It follows there is no basis for the instant suit, and this conclusion makes it unnecessary to consider the claimed unconstitutionality of said section.

There being no merit to the appeal, the judgment of the lower court is affirmed.

Phelps, La Prade, Udall, and Windes, JJ., concur.



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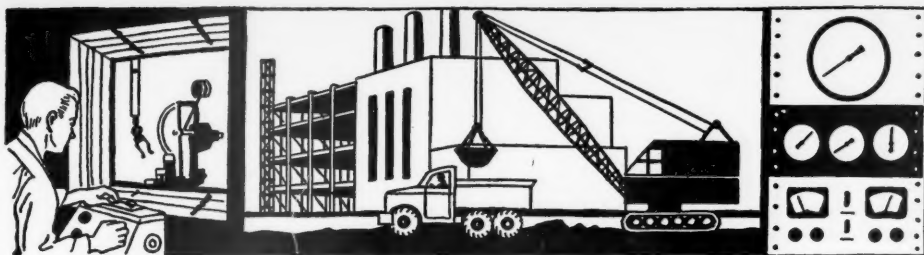


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Industrial Progress

\$5,000,000 Program Proposed By Commonwealth Edison

NEW constructions aggregating \$5,000,000 will be carried out by Commonwealth Edison Company in Chicago in the next four years, according to Willis Gale, chairman of the board.

The contemplated expenditure, when added to the \$732,000,000 the company already has spent in the war period, will roll-up a total cost for construction of more than \$50,000,000.

Kuljian Corp. to Build Multi-Million Dollar Power Plant in Venezuela

THE Kuljian Corporation, engineers and constructors, with headquarters in Philadelphia, will design and construct the building for the first two units of a planned \$45,000,000 power plant in Caracas, Venezuela. James Cherry, executive vice-president of the firm, who made this announcement, said Venezuela's leading utility company, C. A. La Electricidad de Caracas, selected the Philadelphia firm to design, engineer and construct the new project, to be called Santa Tacoa.

The new generating plant eventually will double the existing power potential in the Venezuelan capital. It will be part of Venezuela's giant industrial expansion program, described by an American industrialist as "the world's most fantastic five-year plan." Initial construction plans, outlined by The Kuljian Corporation, call for building to house two 40,000 kilowatt generating units. Four 60,000 kilowatt units will be added later, giving the station an ultimate generating capacity of 320,000 kw.

C. A. La Electricidad de Caracas now has a total nameplate capacity of

112,000 kw, which will be increased to 178,000 kw by the end of 1956.

Dayton Power Plans to Spend \$22.7 Million on Construction

DAYTON Power & Light Company, Dayton, Ohio, plans to spend \$22,750,000 in new construction over the next two years, Frank M. Tait, chairman, announced recently.

During the rest of 1954, about \$12,250,000 will be spent. Electric facilities will account for 63 per cent of the program, gas distribution facilities 21 per cent and steam and water facilities 16 per cent.

During 1953, Mr. Tait said, the company's sales of electric energy came to over two billion kilowatt hours for the first time.

J. H. Holan Corp. Adds New Mechanical Aerial Ladder to Line

THE J. H. Holan Corporation, manufacturer of mobile equipment for public utilities, reports the completion of its new mechanical aerial ladder which can be mounted on almost any type body and chassis.

The purpose of the new Holan series 2200 MAL is to solve high overhead installation, service and/or maintenance problems at low cost. It is specifically designed for small companies and municipalities whose operation does not require the acquisition of heavier and more expensive equipment. Large companies with a limited need for aerial equipment will find the time, efficiency and energy-saving factors that go with this Holan mechanical ladder well worth looking into, according to the announcement.

The ladder comes in three sizes, 23, 27 and 31-feet, ground to platform heights. Full extension, elevation to 72° and 360° endless rotation of ladder can all be accomplished by one

man operating hand cranks on the ladder pedestal mast.

Detailed specification sheets are available on request.

\$600,000,000 Spent by AGE In Seven Years

THE prospects of expansion of every phase of the company's business have never been brighter, President Philip Sporn told shareowners at the recent annual meeting of the American Gas and Electric Company. Mr. Sporn said it was inevitable — barring a worldwide holocaust — that AGE's electric power peak demand and sales would double in possibly the next 10 to 12 years.

After reviewing the financial statements for the past year's business and commenting upon continued growth in 1954, Mr. Sporn said that such temporary decline in the rate of growth as had taken place already has had some positive and beneficial effects and he foresaw even more later in the year. He cited the improved margin of reserve generating capacity soon to take place on the AGE System, resulting in lessened production costs and making possible a more normal construction program through lessening of pressure in connection with system expansion. In one recent month, a reduction in production cost of 7 per cent as against 1953 was shown.

Mr. Sporn said this situation also has made possible more intensive effort on area and load development, and in particular a program aimed at the residential sales market with the goal of the all-electric home. In this connection, he pointed out that the company had embarked on a stepped-up program of expanding electric use in the domestic field involving not only the heat pump but residential air con-

(Continued on page 28)



Tough Digging in Close Quarters

IN PORTLAND, MAINE, the soil in many places can be downright troublesome, with large stones and boulders mixed in with smaller stones and gravel, a combination that makes tough digging. Add to this the fact that trench lines in many places run right alongside rows of trees, poles and other obstructions and you've got a really mean job of trenching.

Yet this CLEVELAND Model 95 "Baby Digger" is moving right along on the job—as shown by the discharge from the conveyor—coming through with the same dependable performance that has made it an outstanding favorite for over 30 years.

This is the kind of job where CLEVELAND'S famous multi-speed transmission really pays off, enabling the operator to select the *right* combination of power and speed for the particular job condition from more than 30 available combinations of digging wheel and crawler speeds.

The "Baby Digger's" compactness and maneuverability also played important parts in completing this job right on schedule in spite of numerous obstructions. The large boulders deposited to the left of the trench in the photo show that good use was also made of CLEVELAND'S reversible conveyor on this job.

Write for descriptive bulletins and specifications, or get the full story on CLEVELANDS from your local distributor.



THE CLEVELAND TRENCHER CO.

"Pioneer of the Modern Trencher"

20100 ST. CLAIR AVENUE • CLEVELAND 17, OHIO

INDUSTRIAL PROGRESS (Continued)

ditioning and resistance heating well.

In a brief review of 1953, the president chose among the many records the capital expenditure of more than \$137-million as "the outstanding about our 1953 operations." It was the highest figure of capital expenditures ever established in the history of the company and brought expenditures for the seven-year period 1947-53 close to \$600-million.

"Why are we spending all this money? Why are we making all these investments in plants and facilities," he asked.

He prefaced his answer to the question by stating that AGE provides electric service to 3 per cent of the national population while supplying 4½ per cent of the electric energy sold. Then he said, "Our communities, to whom we supply approximately 40 per cent more energy per capita than is supplied on the average to the population of the United States, have to us and have a right to do so and hold us responsible for keeping the power supply at a level high enough to meet every reasonable requirement in the present and for growth and expansion. So I emphasize that the expansion of our facilities that we have been carrying out had as the fundamental objective the discharge of our responsibilities to the area which we serve and the making available to the area and its people a power supply for all practical purposes limitless in amount, of high quality, and on economical terms as the most advanced technology and the most earnest devotion to the task of building operating utility facilities could provide."

Otter Tail Power Has \$4,000,000 Program

THE Otter Tail Power Company, Fergus Falls, Minnesota, contemplates a construction program this year totaling approximately \$4,000,000. Transmission and distribution extensions and improvements make up the major portion of the construction budget. Another important item is the beginning of construction of the company's new general office building in Fergus Falls.

Colorado Interstate Gas Plans \$13,800,000 Program

COLORADO Interstate Gas Company, Colorado Springs, Colorado, completed in 1953 the largest single year of expansion in its history, raising system sales capacity to 512 million cubic feet per day.

(Continued on page 30)

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THIS IS MAY!

And this is the **SPECIAL ADVANTAGE STICKER** which dozens of companies are using this month on the front cover of *Electrified Industry*. →



CLEAN — the butcher, the baker and the candlestick maker all want spotless plants; nothing is quite so clean as our power wired right to your machines!

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Pass to _____

THE SPECIAL ADVANTAGES of electric service include: . . Convenience . . . Flexibility . . Instant Starts . . . Economy . . . Reliability . . Cleanliness . . . Good Regulation . . . Ability to take Overloads . . . and the Cooperation and Advice on Electrical Problems which most power companies offer.

Customers are reminded of you and of the **SPECIAL ADVANTAGES** of being on your lines. In addition your stickers help them route your messages to additional readers.

Some companies make up stickers which carry their own slogan (a good idea). Others have Reddy Kilowatt remind the readers that electric power is their willing servant.

Power salesmen make friends for your companies and add to your "net divisible." Years ago they decided that they needed help to overcome the effects of the competitive power, diesel-and-steam, agin-the-utilities magazines that they saw on their customers desks. They helped create the picture magazine which tells the true story that electricity, properly used, is worth many times its cost.

They use this magazine to make 21¢ calls for them in between the \$5 and \$10 calls they make in person.

By using *Electrified Industry* they are able to maintain better-than-ever customer contact and increase the net revenue of the utilities.

ELECTRIFIED INDUSTRY and *Today's Business*
Martin Publications — 20 No. Wacker Dr., Chicago 6

INDUSTRIAL PROGRESS—(Continued)

lion cubic feet of gas daily from 429 million a year earlier.

Cost of the 1954 construction program will be \$13,800,000.

Burroughs Introduces New High Speed Printing and Accounting Machine

A NEW automatic high speed printing and accounting machine capable of turning out 27,000 punched card paychecks an hour, handling in the process up to 108,000 punched cards, was announced recently by John S. Coleman, president of Burroughs Corporation.

Operating at a speed of over 43,000 characters a minute, the new line of machines, called the Burroughs Series G, has the fastest printing

process yet developed for accounting purposes, Mr. Coleman said. It is also the first business machine equipment in which printing and simultaneous high speed punching can be accomplished in a single operation.

"The Burroughs Series G machines," Mr. Coleman stated, "are a milestone in the development of automatic high speed data processing equipment. Up to now, the application of electronics to clerical work has been seriously hampered by the inability of printing equipment to match the extraordinary speed of electronic computers. The printing process employed in the new Series G machines has made a major stride in bridging this gap and will broaden greatly the range of practical applications for electronic office equipment."

The announcement states that synchronizing high speed total printing and card punching, the Series G machines will integrate, in one operation, a number of separate steps in the accounting process, each one of which has traditionally been an expensive and time-consuming operation.

Principal applications of the Series G machines are expected to be found in public utility companies, publishing and mail order concerns, insurance companies, and other industries where there is a large volume of counting records, promotional mailing pieces.

In preparing utility bills, for instance, customer cards would be placed in one feed of the card reader unit, and billing information in another. With one pass of the two feeds of cards, the machine would produce a postcard bill with name and address printed on one side and meter readings, rates, dates and charges printed on the reverse side.

In the same operation, the bills would be punched with the account number and amount for the purpose of crediting the customer's account when payments are received; a separate punched card would be created for use of the meter reader on his next round; totals for proof and analysis would be provided and, if desired, a register would be furnished containing all the billing information.

In many companies, the different tasks accomplished by this single integrated run now require eight separate operations. According to the announcement, the Burroughs Series G machine could have bills for 2,200 families ready for the postman every ten minutes.

\$67,000,000 Spent by Philadelphia Electric in 1953

PHILADELPHIA Electric Company, Philadelphia, Pa., spent \$67,000,000 for new equipment during 1953. This sum brings the company's total investment in utility plants to more than three-quarters of a billion dollars.

SETCO Names New Sales Engineer

JOE G. WALKER has been appointed as industrial sales engineering representative for the SETCO Division of the Stromberg-Carlson Company, according to an announcement by W. Weedfall, general manager.

(Continued on page 32)

PUBLIC UTILITIES FORTNIGHTLY—MAY 1954

This announcement is not an offer to sell or a solicitation of an offer to buy these securities. The offering is made only by the Prospectus.

\$50,000,000

The Columbia Gas System, Inc.

3½% Subordinated Debentures Due 1964

(Convertible on and after January 1, 1955, and to and including December 31, 1958, unless previously redeemed, only \$25,000,000 being convertible in 1955)

Dated May 10, 1954

Due May 10, 1964

The Subordinated Debentures are convertible into Common Stock of the Company at \$13½ per share. The conversion price is subject to adjustment under certain conditions.

Rights evidenced by Subscription Warrants to subscribe for these Subordinated Debentures, at a subscription price of 100% of the principal amount, are being issued by the Company to holders of its Common Stock of record April 21, 1954, which rights expire at 3:30 P.M., Eastern Daylight Saving Time, on May 10, 1954.

The several Underwriters have agreed, subject to certain conditions, to purchase any unsubscribed Subordinated Debentures and, both during and following the subscription period, may offer Subordinated Debentures as set forth in the Prospectus.

The Prospectus may be obtained in any State in which this announcement is circulated from only such of the undersigned and other dealers as may lawfully offer these securities in such State.

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THE OHIO COMPANY

April 23, 1954

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Tackling utility company problems daily . . . maintaining close and continued contact with the financial world gives us an understanding of the complex field of utility financing and investor relations which may be of help to you.

A fresh approach to the problem you are now studying may be suggested by a talk with us. Call Public Utilities Department at DIgby 4-3500 or write us at One Wall Street.

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Capital Funds over \$123,000,000 Total Resources over \$1,400,000,000

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INDUSTRIAL PROGRESS—(Continued)

In that capacity Mr. Walker will devote his time to communications problems in the oil, gas and pipe line industries and other private wire users. He will give special attention to voice, teletype and telemetry applications of carrier equipment, and will assist users in the integration of this type of equipment into their regular communications systems.

Mr. Walker has been continuously associated with the communications and automatic switching industry since 1930.

Modern Voltage Regulator Practice Booklet Available From Westinghouse

BECAUSE of the constantly increasing requirements for close voltage control—coupled with rapid load growth—the Westinghouse Electric Corporation has made available a 20-page booklet on modern regulator practice.

Fundamental application factors of step and induction voltage regulators are discussed, and charts are used to show graphically what popular prac-

tice is today. Both types of regulator are compared from the standpoints of maintenance characteristics and the speed of response factor.

Full lines of station and pole-type regulators—both step and induction design—are described.

For a copy of booklet B-6053, write Westinghouse Electric Corporation, P. O. Box 2099, Pittsburgh 30, Pa.

Jersey Central Pwr. & Lt. Wins Laura McCall Award

JERSEY Central Power & Light Company, Asbury Park, New Jersey, was recently declared a national winner of the Laura McCall Award for outstanding home service work in the Edison Electric Institute Prize Awards Contest for 1953. The company won the award for its activities in various store demonstrations in conjunction with its cooperating appliance dealers in the territory served, home service calls, cake-bakes, work with churches, schools, clubs and other interested groups. Harry Restofski, chairman of the EEI Prize Award Committee and vice president

of the West Penn Power Company presented the award at a lunch meeting in Chicago recently to Ethel Lord, home service director JCP&L.

Samuel Cassidy Named President by Renton Coal

SAMUEL M. CASSIDY, vice president of Pittsburgh Consolidation Company recently was elected president and a director of the Renton Coal Company. Mr. Cassidy succeeds G. A. Shoemaker, executive vice president of Pittsburgh Consolidation Coal Company, who will remain a director of Renton.

The Renton Coal Company is jointly owned by Great Lakes Steel Corporation and Pitt Consol.

Detroit Edison Plans to Increase Capacity to 3,500,000 Kw

DETROIT Edison Company plans to increase its capacity over the next years to about 3,500,000 kilowatts. Present capacity is 2,100,000 kilowatts.

A-C Names L. M. Dings, Jr. Superintendent of Utility Services

LLOYD M. DINGS, JR. has been appointed superintendent of utility services at the West Allis Works, Allis-Chalmers Manufacturing Company, according to an announcement by F. G. Schmid, chief engineer power plant. Mr. Dings succeeds Milton Griesberg, resigned.

Announcement was also made of the appointment of Peter J. Engel, assistant superintendent of utility services and of Russell Milbrath, general foreman of the steamfitter department.

Peninsular Telephone to Conduct \$12,600,000 Program

PENINSULAR Telephone Company, Tampa, Florida, is planning to conduct a large construction program during 1954. Gross expenditures are expected to amount to \$12,600,000.

Sy-Co Corp. Moves to Lyndhurst, N. J.

THE Sy-Co Corporation, designer and erectors of conveyor and materials handling equipment, has moved to Lyndhurst, New Jersey. The company was formerly located at 125 Broadway, New York, New York.

PUBLIC UTILITIES FORTNIGHTLY—MAY 14, 1954

This advertisement is neither an offer to sell nor a solicitation of offers to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

April 28, 1954

400,000 Shares Northern Illinois Gas Company Common Stock Par Value \$5 Per Share

Price \$15.75 per share

Copies of the Prospectus may be obtained from any of the several underwriters, including the undersigned, only in States in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

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The Illinois Company

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White, Weld & Co.

Glore, Forgan & Co.

A. G. Becker & Co.
Incorporated

Central Republic Company
(Incorporated)

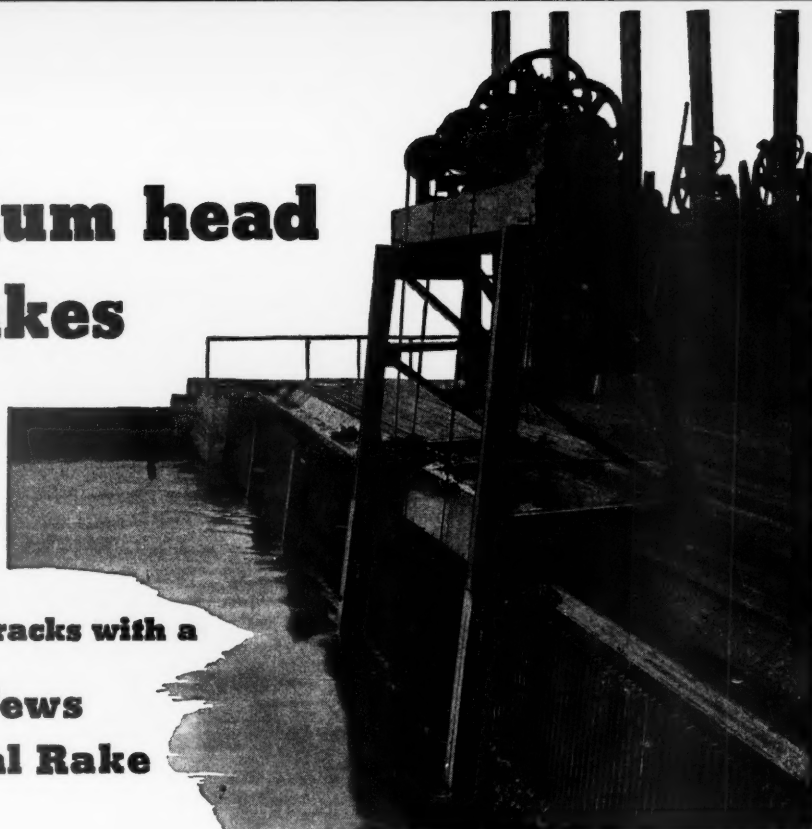
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Gain maximum head at Intakes



by cleaning your racks with a

Newport News Mechanical Rake

Keeping racks clean is essential wherever a few inches of head loss can reduce output of the wheels.

One company calculated the capitalized value of each inch of head gained at its plant as \$6,000. Measured in terms of the value of additional power output, a Newport News rack rake installed at this plant is paying for itself over and over again the year 'round.

Power-operated to clean trash racks at water intakes of hydroelectric plants, steam plants, pumping stations, canals and similar installations, the Newport News Mechanical Rack Rake reduces a major hand-labor task to one of minor periodic activity.

Under ordinary conditions, one man per shift can, with a Newport News Mechanical Rack Rake, keep the racks clean for a dozen bays.



Write for your copy of "RACK RAKE," an illustrated booklet describing the operation and advantages of the Newport News Mechanical Rack Rake. Use the convenient coupon now.

Newport News Shipbuilding and Dry Dock Company
Dept. PUF-5-13, Newport News, Virginia
Please send me a copy of "RACK RAKE."

Name _____ Title _____

Company _____

Address _____

City _____ State _____

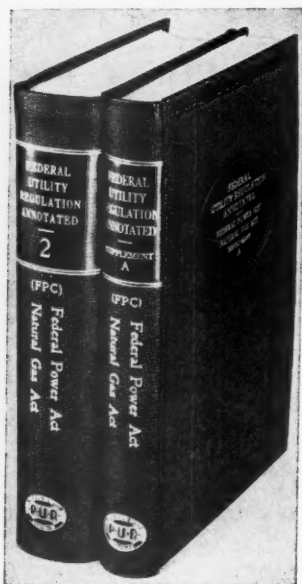
NEWPORT NEWS

**Shipbuilding and
Dry Dock Company**
Newport News, Virginia

Federal Utility Regulation Annotated (FPC), Volume 2 With Supplement A

These volumes contain the only full annotation of the Federal Power Act and the Natural Gas Act, as administered by the Federal Power Commission.

Supplemental Volume A reports the activities of the Commission during the 10-year period subsequent to the publication of the original volume in 1943. All decisions in so-called "leading cases" have been made the subject of special editorial comment and interpretation.



Questions relating to the determination of the cost of projects, accounting, rate-base determinations, rates, service, granting of licenses, extent of the Commission's jurisdiction, definitions of what constitutes interstate commerce, return allowance (involving new views on cost of capital), the very controversial subject of cost allocation in the fixing of gas rates, and many other vital subjects are discussed. The decisions of the Commission and of the courts as well, in such important cases as the *Mississippi River Fuel Corporation case*, the *Alabama-Tennessee Natural Gas Company case* and the *Colorado Interstate Gas Company case* are explored at length in editors' notes.

This two-volume treatise, which has required expert editorial attention for an extended period, in order to classify the Commission's findings under each section of these Acts, is now available at \$25. The volumes should be in the possession of all utility executives, attorneys, rate experts, accountants, valuation engineers, utility analysts and others having an interest in the activities, practices and procedures of the Federal Power Commission, and in commission regulation in general.

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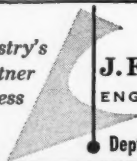
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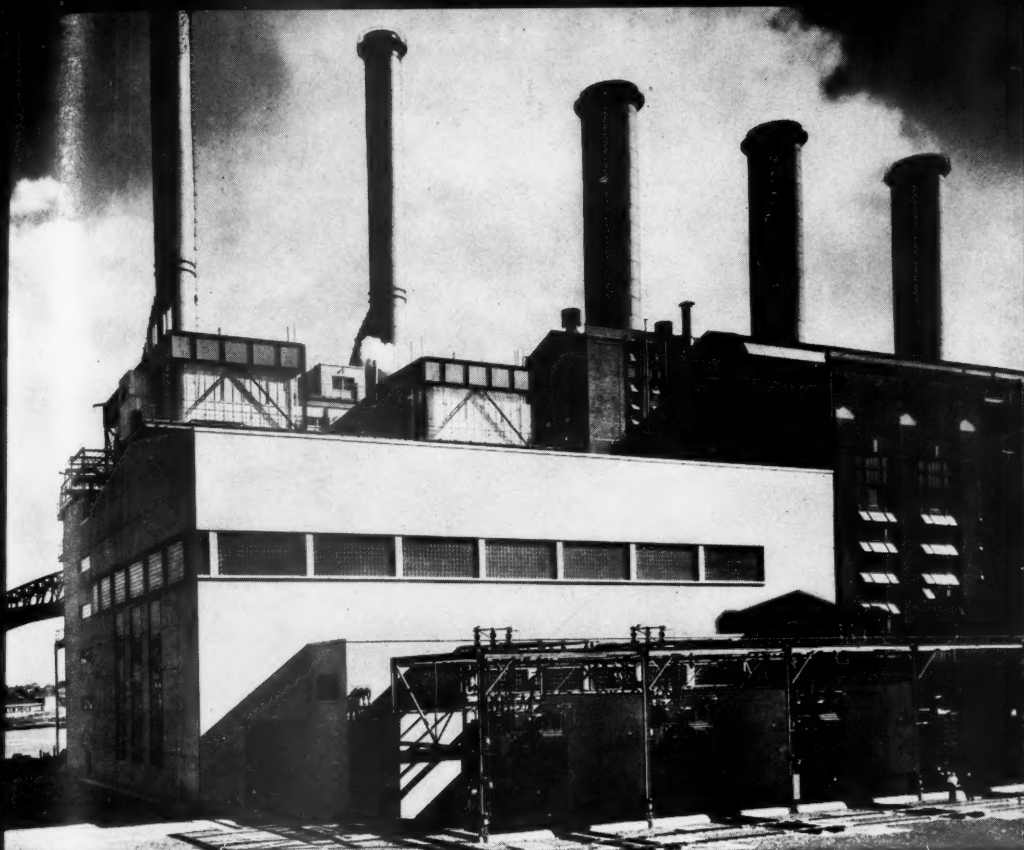
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